INSTALLATION RESPONSE PLAN

FORT HOOD, TEXAS

Updated plan prepared for:

United States Army
Fort Hood, Texas

Original plan submitted by:

Weston Solutions, Inc.
2705 Bee Cave Road, Suite 100
Austin, TX 78746
(512) 651-7100

July 2005

Updated plan submitted by:

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Alexandria, VA 22314-2640
(703) 684-2060

July 2009

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RESPONSE PLAN COVER SHEET

EPA regulation, 40 CFR 112, Appendix F, requires that all facility response plan submittals contain a completed Response Plan Cover Sheet. The cover sheet (below) must accompany the response plan to provide the EPA with basic information concerning the facility.

GENERAL INFORMATION

Owner/Operator of Facility: U.S. Army

Facility Name: III Corps and Fort Hood

Facility Address (street address or route):
Bldg. 1001, 761st Tank Battalion Ave.
Fort Hood, TX 76544-5000

Facility Phone Number: 254-287-1110

Latitude (North): 31° 07" 51'

Longitude (West): 97° 46" 04'

Degrees, minutes, seconds

Dun & Bradstreet Number: N/A

Largest Aboveground Oil Storage Tank Capacity (Gallons): 636,488

Number of Aboveground Oil Storage Tanks: 549+ [1]

North American Industrial Classification System **(NAICS)** Code[2] 928110

Maximum Oil Storage Capacity (Gallons): 3,656,278+ [1]

Worst Case Oil Discharge Amount (Gallons): 652,187

Facility Distance to Navigable Water. Mark the appropriate line:

0–1/4 mile X 1/4–1/2 mile _____

1/2–1 mile _____ >1 mile _____

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

1. Does the facility transfer oil over-water [3] to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

YES X NO _____

2. Does the facility have a total oil storage capacity greater than or equal to one million gallons and, within any storage area, does the facility lack secondary containment [3] that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage area?

YES X NO _____

3. Does the facility have a total oil storage capacity greater than or equal to one million gallons and is the facility located at a distance [3] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments [4]?

YES X NO _____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance 3 (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake? [3]

YES _____ NO X

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill [3] in an amount greater than or equal to 10,000 gallons within the last 5 years?

YES _____ NO X

[1] Includes a variable number of 55-gallon drums and transformers. See Appendix C for additional information.

[2] These numbers may be obtained from public library resources.

[3] Explanations of the above-referenced terms can be found in Appendix C to 40 CFR 112. If a comparable formula to the ones contained in Attachment C-III is used to establish the appropriate distance to fish and wildlife and sensitive environments or public drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

[4] For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to NOAA's Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments (see Appendix E to 40 CFR 112, section 13, for availability) and the applicable ACP.

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: _____

Name (please type or print):

_____

Title: _____

Date: _____

[59 FR 34122, July 1, 1994; 59 FR 49006, Sept. 26, 1994]

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TABLE OF INSTALLATION RESPONSE PLAN FORMS AND TABLES

LIST OF ACRONYMS

AAFES	Army Air Force Exchange Service
ACP	Area Contingency Plan
AR	Army Regulation
AST	Aboveground Storage Tank
BFSF	Bulk Fuel Storage Facility
BLORA	Belton Lake Outdoor Recreation Area
BOA	Basic Ordering Agreement
CFR	Code of Federal Regulations
CU	Classification Unit
DLA	Defense Logistics Agency
DoD	Department of Defense
DOL	Directorate of Logistics
DESC	Defense Energy Support Center
DFSP	Defense Fuel Support Point
DPTM	Directorate of Plans, Training, and Management
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
EDRC	Estimated Daily Recovery Capacity
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ERAP	Emergency Response Action Plan
FORSCOM	United States Army Forces Command
FHFES	Fort Hood Fire and Emergency Services
GPD	Gallons per day
HAAF	Hood Army Airfield
HAZMAT	Hazardous Material
HAZWOPER	Hazardous Waste Operations and Emergency Response
IC	Incident Commander
IOSC	Installation On-Scene Coordinator
IRP	Installation Response Plan
IRT	Installation Response Team
LEPC	Local Emergency Planning Committee
MEDDAC	Medical Department Activity
MOS	Military Occupational Specialty
MSC	Major Subordinate Command (of III Corps)
MSDS	Material Safety Data Sheet
NBC	Nuclear, Biological, Chemical
NCP	National Contingency Plan
NFH	North Fort Hood
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NRS	National Response System
NSCC	National Scheduling Coordinating Committee
OPA90	Oil Pollution Act of 1990

OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
OSRO	Oil Spill Removal Organization
PM	Provost Marshal
POL	Petroleum, Oils, and Lubricants
PREP	National Preparedness for Response Exercise Program
QI	Qualified Individual
RCRA	Resource Conservation and Recovery Act
RGAAF	Robert Gray Army Airfield
RGAF	Robert Gray Alert Facility
RRC	Regional Response Center
SCU	Secondary Containment Unit
SERC	State Emergency Response Commission
SIC	Standard Industrial Code
SOP	Standing Operating Procedure
SPCCP	Spill Prevention Control and Countermeasure Plan
SUPSALV	U. S. Navy Supervisor of Salvage
TCEQ	Texas Commission on Environmental Quality
TNRCC	Texas Natural Resource Conservation Commission (this is now TCEQ)
UST	Underground Storage Tank
UPRP	Used Product Reclamation Point
USCG	United States Coast Guard
WFH	West Fort Hood

FOREWORD

This Installation Response Plan **(IRP)** was prepared in accordance with 40 Code of Federal Regulations **(CFR)** Part 112 - Oil Pollution Prevention. Owners or operators of facilities regulated under this part that pose a threat of substantial harm to the environment by discharging oil into or on navigable waters or adjoining shoreline are required to prepare facility-specific response plans. This plan follows the model facility-specific response plan guidelines found in 40 CFR 112, Appendix F. The IRP for Fort Hood is comprised of the following sections:

Section 1: Emergency Response Action Plan – Contains several sections of the IRP for easy access by response personnel during an actual emergency. The Emergency Response Action Plan **(ERAP)** is comprised of the following sections:

1) Qualified Individual Information
2) Emergency Notification Phone List
3) Spill Response Notification Form
4) Response Equipment List and Location
5) Response Equipment Testing and Deployment
6) Installation Response Team
7) Evacuation Plan
8) Immediate Actions
9) Facility Diagrams.

Section 2: Installation Information – Contains general facility information about Fort Hood.

Section 3: Emergency Response Information – Contains notification procedures and phone list, response equipment list, response equipment testing/deployment information, list of response personnel, evacuation plan, and description of qualified individual's duties during a response to an oil discharge or hazardous material **(HAZMAT)** release.

Section 4: Hazard Evaluation – Examines oil storage facilities at Fort Hood to determine where discharges are likely to occur and the potential impact.

Section 5: Discharge Scenarios – Defines and describes small, medium, and worst case discharge scenarios at Fort Hood.

Section 6: Discharge Detection Systems – Describes procedures and equipment used to detect discharges.

Section 7: Plan Implementation – Describes procedures for implementing Fort Hood's emergency response plan to ensure the safety of the facility and mitigate or prevent discharges. Also described are response resources for small, medium, and worst case spills; plans for recovering and disposing of materials after a discharge has occurred; and plans to contain or control a spill through drainage.

Section 8: Self-Inspection, Drills/Exercises, and Response Training – Contains procedures, checklists, and logs for conducting facility inspections, facility drills/exercises, and training for response personnel.

Section 9: Figures – Oil Storage Figures are stored in Section 1 of this IRP.

Section 10: Security – Describes the security of the Fort Hood installation including security personnel, enclosures (e.g., fencing), and other access controls.

Section 11: Installation Response Calculations – Presents hazard evaluation and vulnerability analysis calculations.

Section 12: Calculation of Effective Daily Recovery Capacity – Presents calculation of effective daily recovery capacity.

Section 13: Response Resources for Worst Case Discharge – Presents evaluation of available resources for the worst case discharge scenario.

1. EMERGENCY RESPONSE ACTION PLAN

1.1 QUALIFIED INDIVIDUAL INFORMATION

IRP Form 1-1, Qualified Individual Information, contains contact information for the qualified individual **(QI)** and alternates. The qualified individual or alternate(s) should be notified immediately in the event of an emergency.

1.2 EMERGENCY NOTIFICATION PHONE LIST

IRP Form 1-2 – Emergency Notification Phone List, provides the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. See Section 3.1 for additional information on Defense Energy Support Center **(DESC)** notification requirements.

1.3 SPILL RESPONSE NOTIFICATION FORM

IRP Form 1-3 – Spill Response Notification Form, is a checklist of information that shall be provided to the National Response Center **(NRC)** and other response personnel. All information on the list must be known at the time of notification, or be in the process of being collected. However, spill notification shall not be delayed to collect the information on the list. A list of state required information is also included.

1.4 RESPONSE EQUIPMENT LIST AND LOCATION

Fort Hood maintains significant equipment for use in oil and hazardous substance spill response at six locations:

- The HAZMAT trailer located at the Central Fire Station (58th St. and Battalion Ave.);
- The HAZMAT trailer located at Building 1953 (Bioremediation Facility);
- The Directorate of Public Works **(DPW)** Environmental P2 Services Building 1950;
- The Maintenance Division General Support Shop;
- The DOL Maintenance Facility;
- The Belton Lake Recreation Area **(BLORA)**.

The inventory of response equipment at these locations is presented in IRP Table 1-1 – Spill Response Equipment, provides a list of equipment by function and a list of equipment by location. In the event that the use of equipment beyond Fort Hood's existing capacity becomes necessary, Fort Hood will utilize the services of an emergency response contractor as described in Section 1.6 and Section 13.

1.5 RESPONSE EQUIPMENT TESTING AND DEPLOYMENT

Response equipment is inspected and deployed for test purposes according to the schedule presented in IRP Form 1-4 – Response Equipment Testing and Deployment Drill Log.

IRP FORM 1-1. QUALIFIED INDIVIDUAL INFORMATION

Primary QI

Name: Billy Rhoads

Position: Fire Chief

Work address: 23025 58th Street, Fort Hood, TX 76544-5021

Home address[1]: 23025 58th Street, Fort Hood, TX 76544-5021

Emergency phone number: (254) 287-3908

Specific response training: Training and certification as per Army Regulation 420-1, Chapter 25; Army Regulation 200-1, Chapter 11; DoD Instruction 6055.06; and DoD Manual 6055.06-M. Training programs meet DoD, NFPA, and HAZWOPER requirements and included certification as a HAZMAT Incident Commander.

First Alternate QI

Name: Coleman Smith

Position: Deputy Fire Chief

Work address: 23025 58th Street, Fort Hood, TX 76544-5021

Home address[1]: 23025 58th Street, Fort Hood, TX 76544-5021

Emergency phone number: (254) 287-3908

Specific response training: Training and certification as per Army Regulation 420-1, Chapter 25; Army Regulation 200-1, Chapter 11; DoD Instruction 6055.06; and DoD Manual 6055.06-M. Training programs meet DoD, NFPA, and HAZWOPER requirements and included certification as a HAZMAT Incident Commander.

Second Alternate QI

Name: Sergio Campos

Position: Assistant Chief of Special Operations

Work address: 23025 58th Street, Fort Hood, TX 76544-5021

Home address[1]: 23025 58th Street, Fort Hood, TX 76544-5021

Emergency phone number: (254) 287-3908

Specific response training: Training and certification as per Army Regulation 420-1, Chapter 25; Army Regulation 200-1, Chapter 11; DoD Instruction 6055.06; and DoD Manual 6055.06-M. Training programs meet DoD, NFPA, and HAZWOPER requirements and included certification as a HAZMAT Incident Commander.

Note:
[1]Due to security reasons, the home address of the qualified individuals is not provided.

IRP FORM 1-2. EMERGENCY NOTIFICATION PHONE LIST

Reporter's name:_____ Date:_____

Facility name:_____

Owner name:_____

Facility identification number:_____

Date and time of each NRC notification:_____

	Organization	Phone number
1.	National Response Center **(NRC)**:	(800) 424-8802
2.	Qualified Individual:	
	Fire Chief:	(254) 287-3908
	Deputy Fire Chief:	(254) 287-3908
	Assistant Chief of Special Operations:	(254) 287-3908
3.	Fort Hood Fire and Emergency Services **(FHFES)** Response Team: Fire Dispatch	
	Evening phone:	(254) 287-3908
4.	Federal On-Scene Coordinator **(OSC)** – EPA Region 6:	
	24-hour spill reporting:	(800) 424-8802
	Region 6 Emergency Response Center:	(866) 372-7745
5.	State On-Scene Coordinator – Texas Commission on Environmental Quality **(TCEQ)**:	
	24-hour spill reporting	(800) 832-8224
	Region 9 Office, Waco, TX:	(254) 751-0335 (M-F 8-5)
6.	Fire Marshall: Billy Rhoads, Chief FHFES	
	24-hour number:	(254) 287-3098
7.	State Emergency Response Commission **(SERC)**:	(512) 463-7727
	24-hour number:	(800) 832-8224 or (512) 463-7727
8.	State police:	(512) 465-6261
9.	Local police:	911
10.	Fort Hood Military Police	(254) 287-2176
11.	Fort Hood Director of Public Works (normal duty hours)	(254) 287-5707
12.	IOSC Spill Response Program Manager	(254) 432-1012 or (254) 286-6262
13.	Fort Hood Environmental Chief (normal duty hours)	(254) 287-6499
14.	Fort Hood Spill Response (24-hour FHFES)	(254) 287-3908

15. Local Emergency Planning Committee **(LEPC)**:
    Bell County LEPC: ..... (254) 933-5587
    Evenings: Sheriff's office ..... (254) 933-5412
    Coryell County LEPC: ..... (254) 223-4123
    Evenings: Sheriff's office ..... (254) 865-7201
16. Local water supply system:
    Bell County Water Control and Improvement District No. 1
    Belton Lake Water Treatment Plant (normal business hours) ..... (254) 526-6343
    24-hour phone: ..... (254) 939-2481
17. Weather Report:
    National Weather Service Forecast Office, Fort Worth, TX ..... (817) 429-2631
18. Local television/radio station for evacuation notification:
    Contact Fort Hood Public Affairs for all local television/radio station contacts for evacuation notifications ..... (254) 291-2591
19. Hospitals: Darnall Army Community Hospital ..... (254) 288-8001
    Ambulance ..... (254) 288-8112
20. Additional notifications
    Southwest Region Office, Installation Management Agency ..... (210) 295-2267
    III Corps Operations Center ..... (254) 287-2506/2520
21. U. S. Army Environmental Center ..... (410) 436-7070
    Central Regional Environmental Office ..... (816) 983-3548
22. Oil Spill Removal Organizations **(OSRO)**:
    If directed by the QI, Incident Commander **(IC)**, or Installation On-Scene Coordinator **(IOSC)**, contact the following OSROs:
    (a) BOA Contractors ..... See Section 13
    (b) USA Environment, LP. ..... (281) 996-4373 (24-hour)
    (c) U. S. Navy Supervisor of Salvage ..... (202) 781-1731 (day)
    ..... (202) 781-3889 (after-hours)
23. For spills from DESC tanks:
    (a) DESC-WE and Staff Duty Officer ..... desc.spillreports@dla.mil
    (b) DESC Staff Duty Officer ..... (703) 767-8420 (24-hour)
    (c) Army Petroleum Center ..... APC.HELPDESK@conus.army.mil
    (d) DESC America East ..... DESC-AM.spillreports@dla.mil
    ..... (713) 718-3883
    ..... (713) 718-3899 (fax))

IRP FORM 1-3. FORT HOOD SPILL RESPONSE NOTIFICATION FORM

NOTE: This form must be submitted to the Fort Hood DPW Environmental Division upon completion.

1. Date and time of incident: _____

2. Name and unit of the individual reporting the incident: _____

_____

3. Phone number(s) of the reporting source: _____

_____

4. Location of spill (building #) and what kind of surface was contaminated: (pavement, dirt, water, creek, etc.):_____

_____

_____

_____

_____

5. Material spilled or leaking, and the amount: _____

_____

6. Direction and path of spill: _____

_____

_____

7. Source of spill:_____

_____

8. Size of container leaking: _____

_____

9. Nature of incident (leak, explosion, spill, fire, or dumping): _____

_____

_____

10. Other Hazardous Materials in the area of the spill: _____

_____

11. Personnel involved in clean-up: _____

_____

_____

12. Actions taken to respond, control, and mitigate the incident: _____

_____

_____

_____

_____

_____

_____

_____

13. Additional information: _____

_____

_____

_____

_____

_____

_____

_____

_____

Signature of Individual
Reporting Spill

Instructions: This part of the form should be completed as soon as possible during the initial site assessment phase by the IC, IOSC, or another designated emergency response official. Answer as many of these questions as possible without endangering personnel. This information should be used when conducting initial notification of regulatory agencies. **Notification of regulatory agencies must be coordinated through the DPW Environmental Division. This form must be submitted to the Fort Hood DPW Environmental Division upon completion.**

Date and time: _____

Spill location: _____

Name and telephone of IOSC: _____

_____

Nearby population: _____

Number and type of injuries: _____

_____

Number of fatalities: _____

Type of incident: ___leak ___fire ___spill ___explosion ___transportation accident

Time of release or discovery: _____

Spill classification: _____
Minor (oil – less than 1,000 gal; HAZMAT – minimal threat to public health/welfare)
Medium (oil – between 1,000 and 10,000 gal; HAZMAT – not classified as minor or major)
Major (oil – greater than 10,000 gal; HAZMAT – substantial threat to public health/welfare)

Substance, estimated amount discharged/released, and unit of measure: _____

Material identifying marks (manifests, placards, labels, ID and/or NFPA numbers, etc.): _____

_____

Characteristics of Spill (odor, color, gas, liquid, solid, etc. if detectable): _____

_____

Cause of incident: _____

_____

_____

Container type and total capacity (truck, railcar, drum, tank, etc.): _____

_____

_____

Affected areas: _____

_____

Potential dangers (fire, explosion, toxic vapor, etc.): _____

_____

Weather conditions: _____

Wind direction: _____

Terrain conditions (slope, surface type): _____

Nearby sensitive environments (water bodies, vegetation, etc.): _____

_____

Personnel at scene: _____

_____

Corrective actions to eliminate and remove pollutant: _____

_____

Estimated time and date for completion of remediation: _____

Assistance required: _____

News media reaction (anticipated or actual): _____

Other information: _____

_____

_____

EMERGENCY NUMBERS
Fort Hood Fire and Emergency Services **(FHFES)**: 911
National Response Center: (800) 424-8802
Texas Spill Reporting: (800) 832-8224
CHEMTREC: (800) 424-9300
Instructions: This part of the form should be completed as soon as possible during the initial site assessment phase by the IC, IOSC, or another designated emergency response official.

Answers to these questions meet Texas requirements as found in Texas Administrative Code rule 30 TAC 327.3.

1. The Name, Address, and Telephone Number of the Person Making the Telephone Report:

   _____

   _____

2. The Date, Time, and Location of the Spill or Discharge: _____

   _____

3. A Specific Description or Identification of the Oil, Petroleum Product, Hazardous Substances or Other Substances Discharged or Spilled:

   _____

   _____

   _____

4. An Estimate of the Quantity Discharged or Spilled: _____

   _____

5. The Duration of the Incident:_____

   _____

6. The Name of the Surface Water or a Description of the Waters in the State Affected or Threatened By the Discharge or Spill:

   _____

   _____

   _____

7. The Source of the Discharge or Spill: _____

   _____

   _____

   _____

8. A Description of the Extent of Actual or Potential Water Pollution or Harmful Impacts to the Environment and an Identification of Any Environmentally Sensitive Areas or Natural Resources-at-Risk:

_____

_____

9. If Different from Paragraph (1) of This Subsection, the Names, Addresses, and Telephone Numbers of the Responsible Person and the Contact Person at the Location of the Discharge or Spill:

_____

10. A Description of Any Actions That Have Been Taken, Are Being Taken, and Will Be Taken to Contain and Respond to the Discharge or Spill:

_____

_____

_____

_____

11. Any Known or Anticipated Health Risks: _____

_____

12. The Identity of Any Governmental Representatives, Including Local Authorities or Third Parties, Responding To the Discharge or Spill:

_____

_____

13. Any Other Information That May Be Significant To the Response Action:

_____

_____

_____

_____

_____

IRP TABLE 1-1. SPILL RESPONSE EQUIPMENT

Note: this table includes a listing of operational equipment by function and a listing of the operational equipment by location.

IRP TABLE 1-1A. SPILL RESPONSE EQUIPMENT BY FUNCTION

Skimmers/Pumps						
Type	**Model**	**Year**	**Quantity**	**Capacity gal/min**	**Storage Location**	**EDRC [1] (gal/day)**
Skimmer	Skim-Pak 4300 SH	JAN07	2	95 each	Bldg 88001	54,720
1,200-gallon Vacuum Truck (#825)	Dominator	UNK	1	60	Bldg 1950	43,200 [2]
3,000-gallon Vacuum Truck (#419)	Dominator	UNK	1	60	Bldg 1950	43,200 [2]
3,232-gallon Vacuum Truck (#643)	UNK	UNK	1	132	Bldg 1950	95,040 [2]
3,300-gallon Vacuum Truck (#846 and #847)	Dominator	UNK	2	60 ea	Bldg 1950	86,400 [2]
					Total EDRC	**322,560**

Note:

1. The EDRC = gpm x 60 min/hour x 24 hour/day x 20% efficiency factor for Skim-Pak
2. The EDRC for all vacuum truck was computed by following the alternative formula found in Section 6.3.1 to Appendix E of 40 CFR 112. Vacuum truck performance tests conducted on 29 June 2009 resulted in the actual verified performance data in discharge conditions identified for these vacuum trucks. Fort Hood has identified sufficient resources to support operations for 12 hours each day.

Booms					
Type	**Model**	**Quantity**	**Absorbency**	**Size (Length)**	**Storage Location**
Containment	UNK	10 each	N/A	100’ each (6” floatation and 12” skirt)	Bldg 88001 (five lengths on two trailers each)
	Slickbar	6 each	N/A	100’ each (6” floatation and 12” skirt)	Bldg 88001 (six lengths on one trailer)
	Slickbar	5 each	N/A	50’ each	BLORA, Bldg 20119
Absorbent Boom	33033	4 boxes @ 6 per box	~ 2 gallons each	8’ x 3”	Bldg 88001
	SA1010	2 each	6 gallons each	10’ x 5”	
	51021	6 boxes @ 4 per box	~ 3 gallons each	10’ x 4”	
	2048	10 each	0.75 gallons each	4’ x 3”	Response Truck, Bldg 4219
	HA1010	1 each	9 gallons each	10’ x 5”	Fire Department HAZMAT Trailer
	HA2010	2 each	16 gallons each	10’ x 8”	
	BOM304	3 each	12 gallons each	10’ x 8”	HAZMAT Response Vehicle, DOL Maintenance, Bldg 80030
Total Absorbency = >216.5 gallons					

Dispersants

Fort Hood is not authorized to store and does not maintain dispersants on base.

Dispersant Equipment

Fort Hood does not maintain dispersant dispensing equipment.

Absorbents

Type	Model	Quantity	Absorbency	Size	Storage Location
Spill Pads (Mats)	MAT 203	1 bag	22 gallons/bag	20” x 15” 100 pads/bag	Fire Department HAZMAT Trailer, Station 5
	MAT 403	1 bag	22 gallons/bag	20” x 15” 100 pads/bag	
	MAT 404	2 bags	33 gallons/bag	36” x 24” 50 pads/bag	
	MAT 231	1 bag	11 gallons/bag	50 pads/bag	Response Truck, Bldg 4219
	MAT 310	1 bag	11 gallons/bag	50 pads/bag	
	MAT 404	1.5 bags	33 gallons/bag	36” x 24” 50 pads/bag	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
	MAT 415	5 bags	11 gallons/bag	20” x 15” 50 pad/bag	Bldg 88001
Spill Pillows	HR7015	1 box	10 gallons/box	17” x 16” x 2” 10 pillows/box	Fire Department HAZMAT Trailer, Station 5
	PIL203	4 ea	1 gallons each	17” x 16” x 1”	Response Truck, Bldg 4219
		4 boxes	10 gallons/box	17” x 16” x 1”	Bldg 88001
Absorbent Socks	SKM203	1 box	15 gallons/box	3” x 10’ 6 socks/box	Fire Department HAZMAT Trailer, Station 5
	104PS	3 boxes	10 gallons/box	3” x 48” 10 socks/box	
	2048	3 box	15 gallons/box	3” x 48” 20 socks/box	
	124CR	4 boxes	9 gallons/box	3” x 46” 12 socks/box	
	124CR	2 boxes	9 gallons/box	3” x 46” 12 socks/box	Bldg 88001
	104PS	1 box	10 gallons/box	3” x 48” 6 socks/box	
	Poly Socks	20 ea	1.67 gallons/sock	3’ x 48”	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Pan	ABS Absorbent	1 package	UNK	UNK	Fire Department HAZMAT Trailer, Station 5
Loose Absorbent	Cotton	2 bags	UNK	UNK	Fire Department HAZMAT Trailer, Station 5
	SA8010	2 bags	5 gallons/bag	6 lbs each	

Absorbents					
Type	**Model**	**Quantity**	**Absorbency**	**Size**	**Storage Location**
Loose Absorbent	HA8010	1 box	5 gallons/box	6.5 lbs each	Fire Department HAZMAT Trailer, Station 5
	Absorbent	2 bags	UNK	UNK	
	Spagsorb	1 box	UNK	UNK	
	Soakaholic 1173	1 box	UNK	UNK	
	Oil Gator	32 bags	18 gallons/bag	30 lbs per bag	Bldg 88001
	Oil Sponge	4 bags	19 gallons/bag	30 lbs per bag	
	HAZORB	10 jugs	UNK	UNK	
	Oil Gator	2 bags	18 gallons/bag	30 lbs per bag	Response Truck, Bldg 4219
	Oil Sponge	2 bags	19 gallons/bag	30 lbs per bag	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
	Absorbent	200 lbs	UNK	UNK	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Total Absorbency = 1,220+ gallons					

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Chlorine Institute Emergency Kit- "A"	1 ea	Fire Department HAZMAT Trailer, Station 5 – Floor Area
Chlorine Institute Emergency Kit- "B"	1 ea	
Chlorine ERK "A"	1 ea	
Chlorine ERK "B"	1 ea	
Chlorine ERK "C"	1 ea	
Heat Buster Fan	1 ea	
Traffic Cones	29 ea	
Step Stools	9 ea	
Wisk Brooms	2 ea	
Lab Pack Drum (20 gal)- with lids	3 ea	
Lab Pack Drum (95 gal)- with lid	1 ea	
Lab pack Drum (75 gal)- with lid	1 ea	
Bucket Lid/ Locking (20 gal)	4 ea	
Disperse Fuel Spray- 5 gallon cans	2 ea	
Water Spray Nozzles	5 ea	
Water Hose Manifold	1 ea	
Water Hose	7 ea	
5-Gallon Buckets	5 ea	
Rubberized Particulate Bucket	1 ea	
EZ UP Tent	3 ea	
Truck Brushes	2 ea	
Scrub Brush	1 ea	
Brush Head	1 ea	
Plastic Shovels	4 ea	

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Plastic Helmets	18 ea	Fire Department HAZMAT Trailer, Station 5 – Floor Area
Engineer Tape	1 roll	
Cotton Bags	2 ea	
Generator (Honda)	1 ea	
Weather Kit	1 ea	
Pick Axe	1 ea	
Hydrant Wrench	1 ea	Fire Department HAZMAT Trailer, Station 5 – Shelves
M9 Paper (1989)	9 ea	
Blankets (Yellow)	5 ea	
Push-Broom Heads	4 ea	
Signs (Danger Chemical Spill)	7 ea	
Marking Paint (Florescent Orange)	1 ea	Fire Department HAZMAT Trailer, Station 5 – Red Boxes
Flags- Assorted Titles	8 ea	
Flag Stand	1 ea	
Large Bolt Cutter	1 ea	
Decontamination Starter Kit	1 ea	
Mercury Spill Kit	1 ea	
Patches (Pat Locks)	6 ea	
Paper Towels	1 rolls	Fire Department HAZMAT Trailer, Station 5 – Cabinet Back
Barricade Tape	4 rolls	
Emergency Response Guide	6 ea	
Chemical Tape	1 ea	
Flashlights (without batteries)	6 ea	
Measuring Tape (12-Foot)	1 ea	
Hand Sanitizers	2 bottles	
Sterile Jars	2 ea	
Shower Heads	2 ea	
Bailing Wire	1 roll	
Tent Stakes	8 ea	
Plumbers Tape	1 roll	
Dynet Fat Wax	1 ea	
Binoculars	1 ea	
Plastic Bags (Small)	1 ea	
Compass	1 ea	
Wooden Shop Brooms	3 sets	Bldg 88001
Cotton Head Mop	1 set	
Plastic Rake	1 set	
Fire Extinguisher (Small)	1 canister	
Wooden Handle Squeegee	12 sets	
Plastic Shovel (4’ Tall)	3 sets	
Metal Shovel (6’ Tall)	4 sets	

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Plastic Bucket (5-Gallon)	2 ea	Response Truck, Bldg 4219
Plastic Scoops	2 sets	
Brooms	3 sets	
Plastic Shovels	3 sets	
Hand-held Squeegee (12”)	1 set	
Digital Camera	1 ea	
Binoculars	1 pair	
Wrenches	2 ea	
Allen Wrenches	1 set	
Screw Drivers	2 ea	
Pipe Wrench	1 ea	
Crescent Wrench	1 ea	
Nylon Tie	1 package	
Fire Extinguisher	1 ea	
First Aid Kit	2 kits	
Chain (30’)	1 ea	
GPS Unit	1 ea	
Sockets	1 set	

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Shovels	2 ea	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Brooms (3 Push, 2 Stick)	5 ea	

Communications Equipment			
Type	**Model**	**Quantity**	**Storage Location**
Vehicle Mount Radios	MACOM	41	Fire Department Vehicles
Handheld Portables	MACOM P7100	82	Fire Department Trucks/Individuals
Base Stations	MACOM	11	Stations 1 thru 5/Comm Center/CP Van
Mobile Communications Unit	UNK	1	Guardian Shed
Base stations	UNK	UNK	Various Locations on Fort Hood, including Police, Public Works, Emergency Management, and Spill Response Teams
Mobile stations	UNK	UNK	
Handhelds	MACON P7100	>400 ea	
Radio/Cell Phones	Nextel	UNK	
Radio Harnesses	UNK	10 ea	Fire Department HAZMAT Trailer, Station 5 – Red Boxes
Radio Microphone and Ear Set	UNK	1 ea	Fire Department HAZMAT Trailer, Station 5 – Cabinet Back
Note: Operating frequencies vary and will be established by the IC at the time of the incident and noted in the Communications Plan.			

Fire Fighting and Personal Protective Equipment		
Type of Equipment	**Quantity**	**Storage Location**
Protective Clothing		
Rubber Boots – Assorted Sizes	20 pairs	Fire Department HAZMAT Trailer, Station 5 – Shelves
Kappler Coverall Suits	4 boxes	
Tyvek Saranex Suits	1 box	
Gloves (Assorted Sizes for HAZMAT)	1 box	
Goggles	1 pair	Fire Department HAZMAT Trailer, Station 5 – Cabinet Back
Latex Gloves (Powder Free)	1 box	Fire Department HAZMAT Trailer, Station 5 – Cabinet Front
Latex Gloves (Powder)	1 box	
Level A Kappler Responders	15 ea	Fire Department HAZMAT Trailer, Station 5 – Outside of Trailer
Level B	20 ea	
Trellborge Level A (Model HPS)	10 ea	
Medium Vinyl Gloves	1 package	Response Truck, Bldg 4219
Blue Exam Gloves	20 pair	
Rubber Gloves	2 pair	
Ansell Edmont Gloves	1 pair	
Ear Protection	2 sets	
Safety Glasses	2 pair	
Tyvek – White (X Large)	5 pair	
Tyvek – Blue (X Large)	3 pair	
Tyvek – Blue (Large)	2 pair	
Rubber Boots (Size 9)	2 pair	
Emergency Vests	2 ea	
White Plastic Hard Hats	2 ea	
Tyvek – White (Large)	32 ea	Bldg 88001
Tyvek – Yellow (Large – With Hood)	19 ea	
Tyvek- Yellow (X Large –With Hood)	10 ea	
Tyvek – Blue (Large)	3 ea	
Bootie (Disposable Foot Covering)	30 pair	
Aprons (Disposable Aprons)	8 ea	
Level B – Suit (Green – Full Capsulated)	2 ea	
Life Vests	10 pair	
Protective Glasses	7 pair	
Ear Protection	2 sets	
Face Shields (Item # 22751)	4 sets	
Green Rubber Gloves (Size Large)	2 boxes	
Rubber Boots	2 pair	
Rubber Hipsters	1 pair	
Heavy Gloves	4 pairs	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Goggles	2 pairs	
Face-Shields	2 ea	
Leather Gloves	2 pairs	

Fire Fighting and Personal Protective Equipment		
Type of Equipment	**Quantity**	**Storage Location**
SCBA/Respirators		
MSA Air Bottles (spares)	8 ea	Fire Department HAZMAT Trailer, Station 5 – Floor Area
MSA Pack with mask and bottle	1 ea	
Scott Pack with bottle	1 ea	
Scott Packs	2 ea	
Wilson Respirators (# C-9D 301)	3 ea	Response Truck, Bldg 4219
Respirators	2 ea	
Air Tank with Harness	4 sets	Bldg 88001
Wilson Respirators (#C-9D 301)	12 pair	
Half-Mask Respirator	1 set	
Respirator Facepiece (# 7200s)	12 sets	
Respirator Air Filters (# 7000)	1 set	
Assorted Equipment		
Foam Jets	2 ea	Fire Department HAZMAT Trailer, Station 5 – Shelves
Foam Inductors – 03 @ 1.5” and 02 @ 2.5”	5 ea	
NBC Detector Kit (M256A1)	1 ea	
Plug/Dike (5-Gallon)	1 ea	
Stainless Steel Sprayers (11/2-Gallon)	2 ea	
EZ UP Shelters (Small)	1 ea	
Shower Heads	2 ea	
New Pig Pipe Patch Kit	1 ea	Fire Department HAZMAT Trailer, Station 5 – Black Boxes
General Repair Kit	2 ea	
Drum Repair Kit	1 ea	
Brass Tool Kits	2 ea	
Tool Boxes – Assorted Tools/General	1 ea	Fire Department HAZMAT Trailer, Station 5 – Red Boxes
HAZMAT Response Kit (Series “C1”)	1 ea	
HAZMAT Response Kit (Series “C”)	1 ea	
HAZMAT Response Kit (Series “AE”)	1 ea	
Portable Decontamination Showers	2 ea	
Water Hose Connectors (6” Pieces)	2 ea	Fire Department HAZMAT Trailer, Station 5 – Cabinet (Back)
Earth Soap (1-Gallon Container)	6 ea	Bldg 88001
Hydro Clean (1-Gallon Container)	3 ea	
Spill X-A (5-Gallon Bucket)	4 ea	
Spill X-C (5-Gallon Bucket)	3 ea	
Bleach (Six 1-Gallon Jugs per Case)	9.5 cases	
Mercury Spill Kit	6 ea	
Spill Kit	1 ea	
Lab Packs	3 ea	

Fire Fighting and Personal Protective Equipment		
Type of Equipment	**Quantity**	**Storage Location**
Assorted Equipment		
Mercury Spill Kit	2 ea	Response Truck, Bldg 4219
Acid Cleaner (3-Gallon Bucket)	1 ea	
Rubber Tubs	2 ea	
Pop-up Pool	1 ea	
EAG A-H	1 ea	Fire Department HAZMAT Trailer, Station 5 – Cabinet Front
EAG I-Z	1 ea	
Suit Inspection Log Book	1 ea	
MSA Maintenance Log Book	1 ea	
Genium's Hand Book	3 ea	
Hazardous Material Book	1 ea	
Emergency Handling Hazardous Material Book (1992 edition)	2 ea	
AIM Detectors (need service)	5 ea	Fire Department HAZMAT Trailer, Station 5 – Outside of Trailer
RKI (Model 82 A) Detector	1 ea	
RAE Detectors	2 ea	
Mini RAE Plus (PID) Detectors	2 ea	
APD 2000 Detectors	8 ea	
Air Cart	1 ea	
Scott SAR Cart	1 ea	
MSDS Book	1 ea	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
250-Gallon Containment Pool	1 ea	
160-Gallon Containment Pool	1 ea	

Other Miscellaneous Equipment (Heavy Equipment, Boats, Motors)		
Type of Equipment	**Quantity**	**Storage Location** [1]
Spill Response Trucks	5 ea	Bldg 4219
Boom Trailer with 500' of Boom	2 ea	Bldg 88001
Boom Trailer with 600' of Boom	1 ea	
16' Flat-Bottomed Boat and Trailer	2 ea	
20' Spill Response Trailer	1 ea	
Excavators	2 ea	Bldg 4489 DPW Maintenance Division General Support Shop
Dump Trucks [6@ 8 tons 10 cubic yards), 4@10 tons (12 cubic yards)]	10 ea	
Motor Graders	8 ea	
Backhoe	6 ea	
Front End Loaders (2.5 cubic yard)	3 ea	
Tractors	4 ea	
Scrapers	3 ea	
Bobcat (0.375 cubic yard)	2 ea	

Other Miscellaneous Equipment (Heavy Equipment, Boats, Motors)		
Type of Equipment	**Quantity**	**Storage Location [1]**
Bulldozers	4 ea	Bldg 4489 DPW Maintenance Division General Support Shop
Forklifts	11 ea	
Trailer, Low bed 60 Ton	1 ea	
Trailer, Fuel 5K GAL	1 ea	
Trailer, 40 Ton (Semi)	1 ea	
Trailer Gooseneck 30'	1 ea	
Trailer Gooseneck 32'	1 ea	
Trailer Gooseneck 32' Flatbed	1 ea	
Trailer, Small Utility Flatbed	1 ea	
Bucket Truck	7 ea	
Auger Truck	2 ea	
Boom Truck	1 ea	
Crane Truck	1 ea	
Boring Machine	1 ea	
Ditch Machine	1 ea	
Lifts (3 scissor and 1 boom)	4 ea	

Note:
1. Vehicles are used for normal operational missions. Contact the applicable storage location for exact location on any given day.

Fort Hood Fire Fighting Equipment				
Vehicle	**Capacity**			**Delivery Pumping Rate (gpm)**
	Water	**Foam**	**Dry Chemical**	
E-One Pumper (Eng-1)	500	40	N/A	1000
E-One Pumper (Eng-2)	500	40	N/A	1000
E-One Pumper (Eng-3)	500	40	N/A	1000
E-One Pumper (Eng-4)	750	40	N/A	1000
E-One Pumper (Eng-5)	500	40	N/A	1000
E-ONE QUINT 110’ (Truck-1)	500	0	0	1250
E-One Titan ARFF (Crash-22)	1500	200	500 lbs	1250
E-One Titan ARFF (Crash-23)	1500	200	500 lbs	1250
Oshkosh Stryker ARFF (Crash-21)	3000	420	450 lbs	1950
Oshkosh P-19 ARFF (Crash-32)	1000	130	N/A	1000
Amertek (Crash-33)	1000	130	N/A	1000
F-550 Brush Truck (Attack-1)	400	5	0	250
F-550 Brush Truck (Attack-2)	400	5	0	250
F-550 Brush Truck (Attack-3)	400	5	0	250
F-550 Brush Truck (Attack-4)	400	5	0	250

Fort Hood Fire Fighting Equipment				
Vehicle	Capacity			Delivery Pumping Rate (gpm)
	Water	Foam	Dry Chemical	
F-550 Brush Truck (Attack-5)	400	5	0	250
Freightliner Water Tender (Tanker-2)	2250	70	0	500
Freightliner Water Tender (Tanker-4)	2250	70	0	500
International Water Tender (Tanker-3)	1000	60	0	500
AM General-M925-Series (Brush-2)	1000	0	0	250
AM General-M925-Series (Brush-3)	1000	10	0	250
AM General-M925-Series (Brush-4)	1000	10	0	250
AM General-M925-Series (Brush-5)	1000	10	0	250
Track Vehicles (Track-844)	1000	0	0	250
Track Vehicles (Track-845)	1000	0	0	250
Track Vehicles (Track-798)	1000	0	0	250
Track Vehicles (Track-799)	1000	0	0	250
E-One Rescue Truck (Rescue-1)	N/A	N/A	N/A	N/A
International Rescue Truck (Rescue-2)	N/A	N/A	N/A	N/A
Hazmat Trailer (Haz-Mat 1)	N/A	N/A	N/A	N/A
Haz-Mat Decontamination Trailer (Decon-1)	N/A	N/A	N/A	N/A
Technical Rescue Trailer	N/A	N/A	N/A	N/A
SCOTT Air Mobile Trailer	N/A	N/A	N/A	N/A
Patten Inflatable Rescue Boat	N/A	N/A	N/A	N/A
Mobile Command Post	N/A	N/A	N/A	N/A
TOTALS	**26,750 gals**	**1,535 gals**	**1,450 lbs**	**17,200 gpm**

IRP TABLE 1-1B. SPILL RESPONSE EQUIPMENT BY LOCATION

Hazardous Materials Trailer - FHFES)
(As provided by FHFES July 2005)

QTY	ITEM
	HAZ MAT TRAILER/ STATION 5- FLOOR AREA
1	Chlorine Institute Emergency Kit- "A"
1	Chlorine Institute Emergency Kit- "B"
1	Chlorine ERK "A"
1	Chlorine ERK "B"
1	Chlorine ERK "C"
1	Heat Buster Fan
29	Traffic Cones
9	Step Stools
2	Wisk Brooms
3	Lab Pack Drum (20 gal)- with lids

QTY	ITEM
	HAZ MAT TRAILER/ STATION 5- FLOOR AREA
1	Lab Pack Drum (95-gal)- with lid
1	Lab pack Drum (75-gal)- with lid
4	Bucket Lid/ Locking (20-gal)
2	Disperse Fuel Spray- 5-gallon cans
8	MSA Air Bottles (spares)
1	MSA Pack with mask and bottle
1	Scott Pack with bottle
2	Scott Packs
5	Water Spray Nozzles
1	Water Hose Manifold
7	Water Hose
5	5-gallon buckets
1	Rubberized Particulate Bucket
3	EZ UP Tent
2	Truck Brushes
1	Scrub Brush
1	Brush Head
4	Plastic Shovels
18	Plastic helmets
1	Engineer Tape (roll)
2	Cotton Bags
1	Generator (Honda)
1	Weather Kit
1	Pick Axe
	SHELVES
20	Rubber Boots (Pairs)- Assorted Sizes
3	Pigs (2048)- Boxes
1	Soakaholic (1173)- Box
1	Hydrant Wrench
2	Foam Jets
5	Foam Inductors- (3) 11/2” / (2) 21/2”
9	M9 Paper (1989)
1	ABS Absorbent Pan (Package)
5	Blankets (Yellow)
2	Cotton Absorbent (Bags)
1	Sphagsorb (Absorbent/ Box)
2	Absorbent Pulp (SA 8010/Boxes)
1	Absorbent Pulp (HA 8010/Boxes)
4	Push broom Heads
3	Pig Skimmers (104 PS/ Boxes)
1	Absorbent Dike (HA 1010)
2	Absorbent Dike (HA 2010)

QTY	ITEM
	SHELVES
3	Absorbent Socks (124 CR/ Boxes)
1	Absorbent Sock (SKM 203)
4	Kappler Coverall Suits (Boxes)
1	Tyvek Saranex Suits (Box)
7	Signs (Danger Chem. Spill)
1	Gloves (Assorted Sizes/ Hazardous Material)
1	NBC Detector Kit (M256A1)
1	Plug/ Dike (5-gallon)
1	Pig Mat (MAT 203)
1	Absorbent Pillows (HR 7015)
1	Economy Mat (MAT 403)
2	Stainless Steel Sprayers (11/2-gallon)
1	EZ UP Shelters (small)- box
2	Shower Heads
2	Absorbent Pads (MAT 404/ Boxes)
	BLACK BOXES
1	New Pig Pipe Patch Kit
2	General Repair Kit
1	Drum Repair Kit
2	Brass Tool Kits
	RED BOXES
1	Tool Box- Assorted Tools/ General
10	Radio Harnesses
1	Marking Paint (Fluorescence Orange)
1	Hazardous Material Response Kit (Series “C1”)
1	Hazardous Material Response Kit (Series “C”)
1	Hazardous Material Response Kit (Series “AE”)
8	Flags- Assorted Titles
1	Flag Stand
1	Large Bolt Cutter
1	Decontamination Starter Kit
1	Mercury Spill Kit
6	Patches (Pat Locks)
2	Absorbent (Bags)
2	Portable Decontamination Showers (1 Complete/ 1 Incomplete)
	CABINET (BLACK)
1	Paper Towels (Roll)
4	Barricade Tape (Roll)
6	Emergency Response Guide
1	Chemical Tape
6	Flashlights (without batteries)
1	Measuring Tape (12 ft)

QTY	ITEM
	CABINET (BLACK)
2	Hand Sanitizers (Bottles)
1	Goggles
2	Sterile Jars
2	Shower Heads
1	Bailing Wire (Roll)
2	Water Hose Connectors (6" Pieces)
8	Tent Stakes
1	Radio Microphone and ear set
1	Plumbers Tape (Roll)
1	Dynet Fast Wax
	CABINET FRONT
1	EAG A-H
1	EAG I-Z
1	Suit Inspection Log Book
1	MSA Maintenance Log Book
1	Binoculars
3	Genium's Hand Book
1	Hazardous Material Book
2	Emergency Handling Hazardous Material Book (1992 edition)
1	Plastic Bags (Small)
1	Latex Gloves (Powder Free)
1	Latex Gloves (Powder)
1	Compass
	OTHER HAZ-MAT EQUIPMENT (OUTSIDE OF TRAILER)
5	AIM Detectors (need service)
1	RKI (Model 82 A) Detector
2	RAE Detectors
2	Mini RAE Plus (PID) Detectors
8	APD 2000 Detectors
15	Level A Kappler Responders
20	Level B
10	Trellborge Level A (Model HPS, currently not in service)
1	Air Cart
1	Scott SAR Cart

Hazardous Materials Warehouse Response Inventory (Building 88001)
(As provided by DPW Environmental Division, March 2009)

Inv. Number	Quantity	Unit	Item	Description	Uses
1	4	Bags	Oil Sponge	Dry Sweep For POL Spills 60 Bags/Pallet	POL On Hard Surfaces

2	32	Bags	Oil Gator		
3	1 Case	Gallons	Earth Soap	Six 1-Gal Jugs/Case	
4	3	Gallons	Hydro Clean		POL On Spills
5	4	Buckets	Spill-X-A	5-Gals/Bucket	Acid/Neutralizer
6	3	Buckets	Spill-X-C	5-Gals/Bucket	Caustic/Neutralizer
7	9.5	Cases	Bleach	Six 1-Gal Jugs/Case	
8	6	Kits	Mercury Kits		
9	10	Containers	Hazorb Absorbent	Item # 21080/Granuals	
10	5	Bales	Oil Pads	50 Pads/Bale/White	
11	2	Boxes	Absorbent Socks	3"X 46" #124CR 12/Box	
12	1	Box	Absorbent Skimmer	#104PS 10 Box	
13	4	Boxes	Absorbent Boom	#33033 3"X 8' 6/Box	
14	1	Box	Absorbent Boom	#Sa1010 5"X 10' 2/Box	
15	1	Box	Spill Kit	All In 1 Box	
16	6	Boxes	Mesh Boom	#51021 4"X 10'/ 4/Box	
17	4	Boxes	Absorbent Pillows		
18	3		Lab Packs		Contains Cleanup Materials
19	3	Sets	Brooms	Shop Wooden Brooms	
20	1	Set	Oil Mop	Cotton Head Mop	
21	1	Set	Rake	Plastic	
22	1	Canister	Fire Extinguisher	Size Small	
23	12	Sets	Squeegees	Wooden Handles	
24	3	Sets	Shovels	Plastic 4-Foot Tall	
25	4	Sets	Shovels	Metal 6-Foot Tall	

Hazardous Materials Warehouse PPE Inventory (Building 88001)
(As provided by DPW Environmental Division, March 2009)

Inv. Number	Quantity	Unit	Item	Description	Uses
1	32	Each	Tyvek – White	Large	
2	19	Each	Tyvek – Yellow	Large – With Hood	
3	10	Each	Tyvek – Yellow	X Large –With Hood	
4	3	Each	Tyvek – Blue	Large	
5	30	Pair	Bootie	Disposable Foot Covering	
6	8	Each	Aprons	Disposable Aprons	
7	2	Each	Level B - Suit	Green - Full Capsulated	
8	10	Pair	Life Vests		
9	7	Pair	Protective Glasses		
10	2	Sets	Ear Protection		
11	4	Sets	Face Shields	Item # 22751	
12	2	Boxes	Green Rubber Gloves	Size Large	
13	2	Pair	Rubber Boots		

14	1	Pair	Rubber Hipsters		
15	4	Sets	Air Tanks	With Harness	
16	12	Pair	Respirators	Item # C-9D301	
17	1	Sets	Breathing App.	Half Mask	
18	12	Sets	Respirator Facepiece	Item # 7200S	
19	1	Sets	Respirator Air Filters	Item # 7000	

Hazardous Materials Response Truck Equipment Inventory (Building 4219)
(As provided by DPW Environmental Division, March 2009)

Inv. Number	Quantity	Unit	Item	Description	Uses
1	2	Bags	Oil Gator	Dry Sweep For POL Spills	POL On Hard Surfaces
2	2	Kits	Mercury Kits		
3	1	Bucket	3 Gals. Acid Cleaner	For Use On Battery Spills	
4	2	Tubs	Rubber Tubs		To Contain POL
5	2	Buckets	Containers	Plastic Buckets 5 Gal	To Store Dry Sweep
6	2	Sets	Scoops	Red Plastic Scoops	For Clean Up
7	3	Sets	Brooms	White/PVC/Nylon Head	For Clean Up
8	3	Sets	Shovels	Plastic	For Clean Up
9	1	Sets	Squeegee	Hand Held 12"	
10	1	Sets	Pop Up Pool		Used In Control Of Spills
11	50	Pads	Fuel Pads	Gray Fuel Pads	Used In Clean Up
12	30	Pads	Oil Pads	Pink Oil Pads	Used In Clean Up
13	2	Sets	Pillows	Square Absorbent Pillows	For Clean Up
14	5	Sets	Absorbent Pigs	Item # 2048 3"X 48"	For Clean Up

Hazardous Materials Response Truck PPE Inventory (Building 4219)
(As provided by DPW Environmental Division, March 2009)

Item Number	Quantity	Unit	Item	Description	Uses
1	1	Packages	Gloves	Medium Vinyl Gloves	
2	20	Pair	Gloves	Blue Exam Gloves	
3	2	Pair	Gloves	Rubber	
4	1	Pair	Gloves	Ansell Edmont Gloves	
5	2	Sets	Ear Protection		
6	2	Pair	Safety Glasses	Plastic	
7	3	Pair	Wilson Respirators	Item # C-9D 301	
8	2	Pair	Respirators	# 7300S Half Mask	
9	5	Pair	Tyveks	White #1841 XL	
10	3	Pair	Tyveks	Blue Tyvek #23281 XL	

11	2	Pair	Tyveks	Blue Tyvek #23281 L	
12	2	Pair	Boots	Rubber Boots Size 9	
13	2	Rolls	Tape	Yellow Caution	
14	2		Vests	Emergency Vests	
15	1	Kit	Flares		
16	2	Stands	Caution Stands		
17	2		Hard Hats	White Plastic	

Hazardous Materials Response Truck Miscellaneous Inventory (Building 4219) (As provided by DPW Environmental Division, March 2009)

Item Number	Quantity	Unit	Item	Description	Uses
1	1		Camera	Nikon Digital	
2	1		Binoculars		
3	2		Wrenches		
4	1	Sets	Wrenches	Allen Wrenches	
5	2		Screw Drivers		
6	1		Pipe Wrench		
7	1		Crescent Wrench		
8	1		Nylon Tie		To Secure Equipment
9	1		Fire Extinguisher		
10	2	Kits	First Aid Kits		
11	1		Chain	30 Feet Long	
12	1		GPS Unit		
13	1	Sets	Sockets		

Hazardous Materials Response Vehicle (DOL Maintenance) (On-site, building 80030, October 2004)

QTY	ITEM	QTY	ITEM
3	Sock booms (8’ x 10’)	1.5 bags	Poly Pads (MAT 404)
2	Shovels	5	Brooms (3 push, 2 stick)
200 lbs.	Absorbent	2 bags	Oil Sponges (30 lbs. each)
4 sets	Heavy gloves	1	MSDS Book
20	3’ x 48” poly socks	2	2-way radio DOL Maintenance Operations Frequency
2	Goggles	2 pair	Leather gloves
2	Face Shields	2	160-gallon Containment Pools
1	250-gallon Containment Pool		

IRP FORM 1-4. RESPONSE EQUIPMENT TESTING AND DEPLOYMENT DRILL LOG

Last Inspection or Response Equipment Test Date: Response equipment last used in May 2008.

Inspection Frequency: Once per month.

Last Deployment Drill Date: Deployment of Response Equipment occurs according to the procedures and frequency described in Section 8.2.3. Last deployment: July 2008.

Deployment Frequency: Response equipment is deployed at least every six months.

Oil Spill Removal Organization Certification (if applicable): As shown in Section 13.

1.6 RESPONSE TEAMS

For the purpose of emergency response, personnel consist of 1) Installation Response Team, 2) DPW Emergency Response Team, and 3) Emergency Response Contractors.

1.6.1 Installation Response Teams

Fort Hood response teams are composed of emergency response personnel from Fort Hood and emergency response contractors (see Section 13) that will respond immediately to an oil spill or other emergency.

Trained personnel from the FHFES HAZMAT Team and DPW Emergency Response Personnel make up the Installation Response Team. On a typical day, 32 firefighters are on duty and the remainder of the 129 firefighters within the FHFES are available around-the-clock to respond to fires, aircraft emergencies, spills and other emergency incidents. The FHFES maintains an up-to-date list of the members of this team. The Fire Department also has Mutual Aid Agreements in place with local jurisdictions. Additional information can be found in Appendix B.

Installation Response Team personnel have received training in the handling of hazardous materials and the FHFES HAZMAT personnel are DoD-certified first responders. The Installation Response Team may be contacted 24 hours a day by dialing 911 on any base telephone. Up-to-date lists of the members of the Installation Response Team are kept at all FHFES stations. The Fire Dispatch has copies of this up-to-date response team lists for their immediate activation, if requested by the FHFES IC.

The Installation Response Team can respond to incidents at most Fort Hood facilities within 4 to 10 minutes. The duties of the Installation Response Team include ensuring the safety of personnel in the surrounding area and the stabilization, containment, and control of the incident. Once facility personnel are safely evacuated from the site and the incident is under control, subsequent response activities (i.e. removal of the spilled material and restoration of the site) are conducted by Fort Hood DPW Emergency Response Personnel and other emergency response contractors.

DPW Emergency Response Personnel include personnel employed by Fort Hood whose duties involve responding to incidents involving hazardous material spills, including oil spills. These individuals are listed on IRP Table 3-2 – DPW Emergency Response Personnel. The duties of the DPW Emergency Response Personnel include mitigation and restoration of the incident site, through the use of appropriately trained facility personnel and contracted OSROs.

1.6.2 Contractor Response Teams

Emergency Response Contractors are those individuals or organizations that can be used by Fort Hood to assist with response actions. The Defense Fuel Support Point **(DFSP)** at Fort Hood is a government-owned contractor-operated facility that stores and supplies bulk fuel to military units at Fort Hood. The DFSP contractor operates under a DESC contract. DESC provides an operations contractor to operate Defense Logistics Agency's **(DLA)** capitalized product facilities at the Bulk Fuel Storage Facility **(BFSF)** and Hood Army Air Field **(HAAF)** Rapid Refuel Facility **(RRF)** within the Main Cantonment Area and the Robert Gray Army Airfield **(RGAAF)** RRF and the RGAAF Alert Tank Farm at the RGAAF Alert Facility **(AF)** within West Fort Hood. However, the U.S. Army Garrison Fort Hood maintains ownership of all real property at

these fuel facilities. The DESC operations' contractor has an OSRO on retainer in the case it is determined the Fort Hood first response capabilities are exceeded. The DESC operations contractor's OSRO is only used to respond to DLA-capitalized fuel spills. When responding to a DLA-capitalized fuel spill, the QI may decide additional spill response resources are needed. In this situation, the QI can request that the DESC operations contractor's terminal manager or his/her assistant activate their contracted OSRO. The terminal manager may also activate the OSRO before directed by the QI. Before or immediately following activation of the OSRO, the terminal manager or his/her assistant will notify the DESC's Contracting Officer's Representative and Contracting Officer. After initial cleanup of the spill, DESC's environmental cleanup contractor will assume the responsibility for long-term cleanup.

USA Environment (the DESC's operations contractor's OSRO) has response personnel and equipment located in New Braunfels, TX and in the Houston, TX area. If requested, they can respond within Tier 1 times. The U.S. Navy Supervisor of Salvage can also be used for the worst-case discharge on Fort Hood. If requested, they can respond within Tier 3 times. If additional resources are needed, U.S. Coast Guard **(USCG)** basic ordering agreement **(BOA)** emergency response contractors are located in several cities within Texas. These contractors are listed on IRP Table 1-3, Emergency Response Contractors. Additional information can be found in Section 13.

IRP TABLE 1-2. DPW EMERGENCY RESPONSE PERSONNEL

DPW Emergency Response Personnel				
Name	Phone	Response Time	Role	Training
Charlotte Baldwin	(254) 432-1012	60 minutes	DPW Environmental IOSC	OSHA 1910.120 HAZWOPER IC Training
Dan Gomez	(254) 432-1018	20 minutes	DPW Environmental Spill Responder	OSHA 1910.120 HAZWOPER
Pat Hunt	(254) 432-1014	20 minutes	DPW Environmental Spill Responder	OSHA 1910.120 HAZWOPER

IRP TABLE 1-3. EMERGENCY RESPONSE CONTRACTORS

Emergency Response Contractors			
Contractor	**Phone**	**Response Time**	**Response Capabilities**
USA Environment, LP	281-996-4373	4.0 hours from New Braunfels 6.5 hours from Houston	**Secondary Worst-Case Discharge Responder** • Section 13 contains a copy of the contract between USA Environment and the DESC facility on Fort Hood. A listing of their spill equipment inventory is also included.

Emergency Response Contractors			
Contractor	**Phone**	**Response Time**	**Response Capabilities**
Dept. of the Navy, Supervisor of Salvage **(SUPSALV)**	202-781-1731 Hours 0600 - 1630 202-781-3889 Hours after 1630	15 hours	**Secondary Worst-Case Spill Response Contractor** • Tier 2 and 3 response capabilities. • Section 13 contains the list of spill equipment available from SUPSALV through a Military Interdepartmental Purchase Request **(MIPR)**.
USCG BOA	See Section 13	See Section 13	See Section 13

1.7 EVACUATION PLAN

1.7.1 Location of Stored Materials

See IRP Forms C-1 through C-9 in Appendix C of this IRP for the descriptions of POL containers on Fort Hood. The areas on the installation with these containers are shown on IRP Figures 1-1A – 1-1F, Map Sections A to E, in Section 1.9. Site figures in Appendix D also show the locations of oil and HM storage and transfer sites addressed in the SPCCP. IRP Forms C-1 to C-8 identify the locations of the POL containers within each installation area.

1.7.2 Hazards Imposed by Spilled Material

Hazards posed by JP-8 aviation fuel include:

- Explosion and/or fire
- Inhalation, ingestion, or dermal contact by humans
- Fish and wildlife injury / damage from discharges of aviation fuel to water courses

Explosion or fire hazard may result from a catastrophic failure of one or more bulk storage tanks in the presence of an ignition source. Flight operations include regular air traffic directly over the bulk storage tanks and explosion/fire would result from an aircraft crashing into or near the bulk tanks. Accidental release of JP-8 during loading / unloading / fueling operations could discharge quantities of fuel to the ground surface which could potentially ignite. Rupture of the transfer piping from construction operations could release quantities of JP-8 to the ground surface, which could potentially ignite from uncontrolled ignition sources.

Spills or leaks from the bulk storage tanks would be contained within the concrete secondary containment and are not likely to impact nearby aquatic environments. Spills or leaks occurring along the transfer pipeline or at the fuel stands could reach surface draining facilities, be transported down-gradient, and impact aquatic environments.

The above-described scenarios would expose workers and airmen to inhalation, ingestion, or dermal contact with the spilled material.

The specific hazards of the major products stored at Fort Hood are listed in IRP Table 1-4 below.

IRP TABLE 1-4. PHYSICAL AND TOXICOLOGICAL HAZARDS OF STORED POL PRODUCTS

Physical and Toxicological Hazards of Stored POL Products							
Material Name	**Oil Group**	**Vapor Density[1]**	**Flammable Range[2]**		**Flash Point[3]**	**Specific Gravity[4]**	**Toxicity Level[5]**
			LEL	**UEL**			
Unleaded Gasoline/ MUR or MOGAS[6]	1	3.0-4.0↓	1.4%	7.4%	<-30°F	0.75 Floats	300 ppm TLV 500 ppm STEL
Diesel Fuel	1	8.0↓	0.4%	7.5%	130°F	0.87 Floats	10 ppm TLV 15 ppm STEL
JP-8	1	4.7↓	0.7%	4.7%	100°F	0.84 Floats	NE

Note 1: Vapors/gases with densities less than 1 will rise (↑) in air and be trapped at the top of enclosures. Vapors/gases with densities greater than 1 will sink in air (↓), travel along the ground, and settle in low areas.

Note 2: LEL = lower explosive limit, the same as lower flammable limit
UEL = upper explosive limit, the same as upper flammable limit

Note 3: Flash point is the temperature at which enough vapors are present to ignite and flash across the liquid's surface when an ignition source is provided. Lower Flash Point temperatures mean greater amounts of vapors will be present, resulting in increased risk of fire or explosion.

Note 4: Specific gravity is a relative measure of the density of the material to the density of water. Any number less than 1 means the product will float on water. Any number greater than 1 indicates the material will sink beneath the surface of water. A number equal to 1 indicated the material may float or sink. Actual locations of such materials are dependent on other factors such as water temperature, air temperature, sunlight, darkness of material, etc.

Note 5: These are published exposure limits found on Material Safety Data Sheets **(MSDS)**.
PEL = OSHA's permissible exposure limit.
TLV = ACGIH's threshold limit value-time weighted average.
STEL = Time weighted (8-hour) average-short term (15-min.) exposure limit.
IDLH = NIOSH's immediately dangerous to life or health.

Note 6: Unleaded and premium unleaded gasoline contains toluene, xylene, ethylene benzene, and benzene.

NE means "not established".

1.7.3 Spill Pathways

The major oil storage facilities at Fort Hood are generally widely separated. Fort Hood may be divided into four general geographic areas. These are the Main Cantonment area, West Fort Hood, BLORA, and North Fort Hood. Most of the facilities drain to existing storm drainage ditches and/or intermittent waterways, which ultimately drain to Belton Lake. One major facility ultimately drains to Stillhouse Hollow Lake. Another main facility drains to Little River. Probable oil spill pathways for the major facilities in each of these geographical areas are described below. Spill pathways for minor facilities are shown in Appendix D.

1.7.3.1 Main Cantonment Area

Within the Main Cantonment Area, the major facilities include the BFSF and the HAAF RRF.

Bulk Fuel Storage Facility. A discharge from the BFSF would flow in a northeasterly direction following surface drainage features and seasonally-dry creek beds. The discharge would flow east until it reaches Clear Creek in about 1.7 miles. Flow would continue northward on Clear Creek for approximately 4.7 miles until it reaches House Creek. The discharge would then flow in a northeasterly direction until it reaches Cowhouse Creek in approximately 4.6 miles. The discharge would then flow in an easterly direction until it reached the western arm of Belton Lake in approximately 13.2 miles. The total distance traveled before the discharge would reach Belton Lake is approximately 24.2 miles.

Hood Army Airfield Rapid Refuel Facility. A discharge from the bulk fuel storage facility at the HAAF RRF would flow 0.2 miles in a southerly direction following surface drainage features until it reaches a storm water culvert in a seasonally dry retention area. The discharge would then follow the concrete pipes under Warrior Way, through a concrete lined drainage feature for approximately 0.6 miles. Flow would continue in a southerly direction for approximately 0.8 miles following the surface drainage until it reaches South Nolan Creek. The discharge would continue to flow in an easterly direction for 9.5 miles until it reaches the Leon River. The discharge would then flow in a southerly direction for 8.1 miles until it reaches the Lampasas River. At this confluence, the waterway now becomes the Little River, a part of the Brazos River Basin. The total distance traveled before the discharge would reach Little River is approximately 34.8 miles.

1.7.3.2 West Fort Hood

Within West Fort Hood, the major facilities include the bulk fuel storage facility at the RGAAF RRF and the RGAAF AF.

Robert Gray Army Airfield Rapid Refuel Facility. A discharge from the RGAAF RRF bulk fuel storage facility would flow about 100 feet in an easterly direction over surface features until it reaches a seasonally-dry unnamed creek. The discharge would then flow about 1.1 miles northward in this unnamed creek until it reaches Clear Creek. The discharge would then flow in a northerly direction for approximately 7.7 miles until it reaches House Creek. The discharge would then flow about another 4.6 miles in a northeasterly direction until it reaches Cowhouse Creek. The discharge would then flow in an easterly direction for approximately 13.2 miles until it reaches the western arm of Belton Lake. The total distance traveled before the discharge would reach Belton Lake is approximately 26.6 miles.

Robert Gray Army Airfield Alert Tank Farm. A discharge from the RGAAF Alert Tank Farm would flow in a southerly direction over surface features for approximately 275 feet until it reaches a seasonally-dry unnamed creek. The discharge would then flow in a southeasterly direction for approximately 2.0 miles until it reached a culvert going under Oakalla Road. Somewhere north of this culvert, this unnamed stream becomes Reese Creek. The discharge will continue to flow in a southerly direction for 7.2 miles until it reaches the Lampasas River. The discharge will then flow approximately 18.7 miles in a generally easterly direction until it reaches the western arm of Stillhouse Hollow Lake. The total distance traveled before the discharge would reach Stillhouse Hollow Lake is approximately 27.9 miles.

1.7.3.3 BLORA Maintenance and Recreation

A spill from the ASTs at the maintenance area will migrate to Belton Lake via the roadway and a small stream. The spill must travel approximately 420 feet to reach Belton Lake. A spill from the 4,000-gallon AST, supplying fuel to the recreational boat dock, will migrate to Belton Lake via existing drainage. The spill must travel approximately 400 feet to reach Belton Lake.

1.7.3.4 North Fort Hood

Fort Hood does not have any major facilities in North Fort Hood. The Texas Army National Guard Mobilization and Training Equipment Site is located on North Fort Hood. A spill from an AST located at this facility will migrate towards the Leon River via existing storm water drainage pathways and Turnover Creek (approximately 2200 feet to Turnover Creek). The Leon River is approximately 1500 feet from Turnover Creek. The Leon River empties into Belton Lake approximately 25 miles downstream. The Texas Army National Guard is responsible for developing and maintaining a Spill Prevention, Control, and Countermeasure Plan and IRP conforming to 40 CFR 112 and FH Regulation 200-1 for the Mobilization and Training Equipment Site.

1.7.4 Prevailing Wind Direction and Speed

The estimated prevailing wind speeds and direction at Fort Hood are shown in IRP Table 1-5. Information on wind direction and speed is readily available to emergency responders from the Fort Hood air traffic controllers.

IRP TABLE 1-5. PREVAILING WIND SPEED AND DIRECTION

Average Wind Speed												
	JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Direction	S	S	S	S	S	S	S	S	S	S	S	S
Speed	11	11	12	11.5	10.5	10	9.5	9	9	9	10	10
Peak Gusts	49.5	47	50	47	60	54	45	46	68	49	52	70

Direction = prevailing wind direction in compass points. Peak Gusts = peak wind gusts in miles per hour.
Speed = mean wind speed in miles per hour.

Source: NOAA National Climatic Data Center, *"Climatic Wind Data For The United States,"* NOV 1998
Note: The above data is an average of the data for Austin and Waco as shown in the above reference.

1.7.5 Water Currents, Tides, or Wave Conditions

The base drains through drainage ditches and storm water drains that ultimately convey drainage flows off the base. The creeks, unnamed tributaries, and rivers are not impacted by tidal conditions or wave action.

1.7.6 Arrival Route of Emergency Response Personnel and Response Equipment

In an emergency, Fire Department personnel and equipment would be dispatched from the closest Fire Station on base to the location of the incident. Medical response personnel would be

dispatched from the closest of the eight medical clinics or the Carl R. Darnell Army Medical Center Hospital. Arrival routes for off-base response organizations are shown on IRP Figure 1-3, *Site Evacuation Plan.* The evacuation route or routes chosen by the IC will allow for transit of these emergency resources as necessary. Fort Hood Military Police response would be dispatched by the Law Enforcement Desk Sergeant from their patrol zones throughout the base.

1.7.7 Evacuation Routes, Alternate Routes, Location of Alarm/Notifications Systems, and Locations of Shelters

Determination: Initial isolation and evacuation is determined in accordance with the Emergency Response Guidebook and prevailing conditions such as direction and rate of spillage, weather, wind, and hazard.

In the event of an oil or HAZMAT spill, the FHFES IC and DPW IOSC will consider the need to evacuate personnel from affected areas.

- If evacuation is necessary, the IOSC coordinates with the fire department, Provost Marshal (Military Police), and Medical Department Activity to determine the needs and scope of evacuation.
- Coordination with the Emergency Operations Center **(EOC)**, other agencies of Fort Hood, and local governments may be required according to circumstances.

Routes:

– When evacuating to the east, the most advantageous routes are:

- Turkey Run Road
- South Range Road
- North Avenue
- Murphy Road
- Central Avenue
- Tank Destroyer Boulevard
- Highway 190
- Pump Station Road
- Mohawk Road

– When evacuating to the north, the most advantageous routes are:

- Gray Drive
- Clarke Road
- Clear Creek Road
- 72nd Street and West Range Road
- Hood Road
- 37th Street
- 19th Street
- Martin Drive and East Range Road

– When evacuating to the south, the most advantageous routes are:

- Clarke Road
- Gray Drive
- Clear Creek Road
- 72nd Street
- Hood Road
- 37th Street
- 19th Street
- Martin Drive

– When evacuating to the west, the most advantageous routes are:

- Turkey Run Road
- South Range Road
- Battalion Avenue
- Tank Destroyer Boulevard

- Murphy Road
- North Avenue
- Park Avenue
- Highway 190
- Pump Station Road
- Mohawk Road

Staging: The Provost Marshal designates staging areas used to hold evacuees until the hazard is eliminated or until temporary shelters become necessary and available.

Staging Areas can be established in the vicinity of:
- PK165467 (west end of North Avenue),
- PK232483 (East Range Road),
- PK165441 (Railhead Drive), and
- PK233716 (North Fort Hood).

Shelters: The Provost Marshal designates temporary shelters used to accommodate evacuees when the hazard is expected to persist for more than six hours.

Temporary shelters can be established at:

- Bldg 23001 (Abrams Field House),
- Bldg 9301 (Burba Physical Fitness Center),
- Bldg 31006 (Harvey Physical Fitness Center),
- Bldg 12018 (Raider Physical Fitness Center),
- Bldg 39008 (Kieschnick Physical Fitness Center),
- Bldg 24006 (Red Team Physical Fitness Center),
- Bldg 87101 (Starker Physical Fitness Center),
- Bldg 91073 (West Fort Hood [WFH] Physical Fitness Center), and
- North Fort Hood barracks.

Communication: Evacuation instructions may be transmitted to personnel in affected areas using one or more of the following methods:

- Telephone,
- Military police,
- Fire department, or
- Radio and television
  - Tactical (FM) net,
  - Emergency band (fire department, police, DPW, Range Division, etc.),
  - Citizens' band channel 9 (Range Division, 287-3130), or
  - Local television and radio broadcasters.

Execution: The Provost Marshal directs evacuation in coordination with the EOC, OSC, fire department, and emergency departments of adjacent cities.

Evacuation may begin before coordination as needed.

Military police and local police departments prevent unauthorized personnel from entering unsafe areas within their respective jurisdictions.

The Provost marshal and local police departments establish routes and staging areas considering:

- advice from the OSC,
- capabilities of existing roads,

- wind direction and velocity,
- approximate number of evacuees,
- potential for spread of hazards.
- available transportation,
- resources available from adjacent cities,

1.7.8 Transportation of Injured Personnel to Nearest Emergency Medical Facility

After initial decontamination in the field, injured personnel would be transported to the closest on-base medical facility (one of eight clinics or the Carl R. Darnell Army Medical Center Hospital). If additional medical resources are needed, or if Fort Hood medical resources are within the evacuation zone, injured personnel would be transported to the Metroplex Hospital, which is less than one mile from Fort Hood at 2201 South Clear Creek Road.

1.7.9 The Need for a Centralized Check-In Area for Evacuation Validation (Roll Call)

The need for a centralized check-in area for evacuation validation (roll call) will be determined and activated by the IC. Unless otherwise directed by the IC, the shelters and staging areas identified in section 1.7.7 are designated check-in areas. This will ensure that all persons working at nearby facilities are accounted for during emergencies. This process will work well for the many industrial portions of the post where a well-established work force is routinely present. All personnel on duty will be accounted for by their supervisor, officer, or non-commissioned officer in-charge. The nature of the military organizational structure allows for efficient accounting of all personnel and quick identification of missing personnel.

Managers of the base buildings have developed a personnel list to be used for evacuation validation (roll call) in the event of a catastrophic event. Primary and secondary evacuation routes and re-assembly areas have been established as appropriate for that particular building. Signs are posted within the building to remind occupants of evacuation procedures and re-assembly areas. The senior employee at each building is responsible for:

- Development of evacuation and re-assembly plan criteria,
- Implementing all aspects of local evacuation plans and procedures,
- Dissemination of pertinent evacuation/re-assembly information to building occupants (meetings, posting of signs, etc.),
- Conducting evacuation and re-assembly drills,
- Accounting for all persons at that building during drills and actual emergencies,
- Conveying roll call information to emergency response personnel arriving at the scene.

1.7.10 Selection of a Mitigation Command Center

The pre-selected site for the Emergency Operations Center **(EOC)** is the III Corps Operations Center located in Building 1001. The Garrison Commander or designated representative will exercise command authority of all assigned and attached military and civilian personnel and resources, whether they are located on or off the installation during the disaster response and recovery, from the EOC.

The IC will be responsible for establishing an incident-specific command mitigation center in the event of an emergency. Depending on the exact location of the incident, the IC may select a building that is located a safe distance from the incident site where information may be quickly disseminated to response and rescue workers. When possible, this incident specific command

mitigation center should be within line-of-site of the incident to allow direct observation of response/rescue activities. Communication lines to the EOC and to appropriate civil authorities should be established immediately.

1.7.11 Community Evacuation Plans

Evacuation of the local community would be conducted by the Killeen Fire Department, Killeen Police Department, the Bell County Sheriff, Bell County LEPC, Coryell County Sheriff, and/or Coryell County LEPC. Copies of the community evacuation plans from Bell County, Coryell County, and the city of Killeen are located within the Fort Hood Corps Operations Center and the Killeen Emergency Operations Center. Some assistance from Fort Hood Military Police and Fire Department personnel would likely be provided for evacuation of communities closest to the base or in immediate danger.

1.8 IMMEDIATE ACTIONS

1.8.1 Response of Person Discovering Spill

Personnel discovering a discharge/spill incident, or threat of an incident, where there is a danger of fire or release of oil or hazardous materials onto the land, into the air, and/or into the water that would threaten human health and safety and/or the environment **shall immediately do the following:** *WARNING – DO NOT ATTEMPT ACTIVITIES IN CONFINED SPACES OR IN THE PRESENCE OF PETROLEUM/CHEMICAL VAPORS. EVACUATE AREA AND IMMEDIATELY CONTACT FIRE DEPARTMENT.*

- Provide first aid to any injured persons; call 911 if assistance is required.
- Evaluate the discharge/spill incident according to the following reporting criteria.
  1) Have over 25 gallons of petroleum products been released?
  2) Has any hazardous substance been released?
  3) Does the spill cover a 100-square-foot area or greater?
  4) Does the spill appear to be harmful or potentially threaten the public health and welfare?
  5) Does the spill cause a visible sheen on water?
- If spill meets one or more of the above criteria, immediately notify:
  1) Spill site supervisor/commanding officer.
  2) FHFES @ 911 or Fire Dispatch @ 287-3908.
  Note: When reporting the spill, give the information listed in the following checklist:

Check	Activity
	Name of person making the report
	Name and location of facility
	Telephone number where reporting person can be reached
	Date and time of discharge or fire discovery
	Brief description of incident and any possible hazards to human health and/or the estimated quantity of material or waste involved
	Identification of the material(s) involved
	Extent of any contamination
	Extent of any injuries

- If spill does not exceed criteria, notify:
  1) Spill site supervisor/commanding officer.
  2) DPW Environmental Division @ 254-287-6499 (day).

1.8.2 Response of Spill Site Supervisor/Commanding Site Officer

The spill site supervisor/commanding site officer shall:

- Identify the source of the spill/release (if it can be performed safely).
- Activate the site's emergency alarm system, if necessary.
- Ensure that the site is evacuated, if necessary.
- Ensure that initial notifications to FHFES, DPW Environmental Division, and Fort Hood organization responsible for spill have been made.
- Ensure that the following immediate spill response actions are taken, provided that these actions can be performed safely and do not endanger personnel. *WARNING – DO NOT ATTEMPT ACTIVITIES IN CONFINED SPACES OR IN THE PRESENCE OF PETROLEUM/CHEMICAL VAPORS. EVACUATE AREA UNTIL FIRE DEPARTMENT ARRIVES AND ASSUMES CONTROL*.

Oil Spill Response - Immediate actions

1) STOP THE PRODUCT FLOW – Act quickly to secure pumps, close valves, close spill drains, tighten gaskets, etc.
2) WARN PERSONNEL – Enforce safety and security measures and secure area. Keep non-essential persons away, isolate a 1/2 mile radius if tank or tankers are on fire. Otherwise, isolate a 150-foot radius. Ensure necessary personnel stay upwind and avoid low lying areas.
3) SHUT OFF IGNITION SOURCES – Motors, electrical circuits, cell phones, open flames, etc.
4) INITIATE CONTAINMENT – Around the tank and/or in the water with oil boom provided at the site.
5) ESTIMATE THE AMOUNT AND TYPE OF OIL SPILLED.

1.8.3 Response of Fire Department

The FHFES is the first responder to the spill. On arrival of the Fire Department, the responding Fire Chief will become the IC and will assume charge of the spill site. The FHFES HAZMAT Team provides technical expertise, assistance, and spill response equipment at the incident and shall perform duties as directed by the IC. The IC shall:

- Assess and initiate scene control.
- Initiate necessary evacuations according to evacuation plan in Section 1.7 or 3.5 of the IRP.
- Implement oil spill response immediate actions listed above if they have not been conducted.
- Identify and stabilize the spill site to the extent possible.
- Ensure the Fort Hood DPW Environmental Division's IOSC has been contacted.
- Assess the extent of migration of the spill, including checking downstream locations for spill extent.

Fire Fighting Capabilities

Fort Hood has complete fire response capabilities with well-trained fire fighting personnel capabilities. IRP Table 1-1 contains a list of fire fighting vehicles and major equipment. In the event of a fire, the IOSC is the point of contact with the Fire Chief. Response time is generally less than 5 minutes for sites located in West Fort Hood, South Fort Hood, and East Fort Hood. Response time for a fire at the BLORA site (Belton Lake) is approximately 20 minutes.

In the event that a spill emergency or fire is beyond the capability of the FHFES, or in a spill situation that involves multi-jurisdictional boundaries, mutual aid agreements exist with the following fire departments:

- Bell County
- Copperas Cove
- Coryell County/Gatesville
- Harker Heights
- Killeen
- Lampasas County
- Nolanville

Mutual aid response will be made in accordance with existing agreements with these fire departments and only upon authorization of the Command Group and the Fire Chief.

1.8.4 Response of HAZMAT Team

Once an incident involving hazardous materials has been stabilized, the HAZMAT Team shall:

- Initiate containment by termination of the discharge if not already completed, including:
  1) righting an overturned/spilling container;
  2) plugging a leak;
  3) closing valves;
  4) pumping contents of a leaking container/tanks into another (off-loading);
  5) placing a leaking container into an over-pack container.

Note: This concludes Fire Department activities at the site. The FHFES may not actively participate in recovery and cleanup due to the department's protection role.

1.8.5 Response of DPW Environmental Division

The DPW Environmental Division IOSC shall:

- Assess the following:
  1) Spill conditions, including extent of spill, identification of hazards and immediate areas threatened.
  2) Quantity of material spilled.
  3) Corrective action.
  4) Response resources necessary to combat spill, including spill contractor support necessary. **The IOSC shall follow guidelines established in Section 7.2 of this IRP for small, medium, and worst case spills in determination of response resources necessary.**
  5) Fort Hood organization responsible for source of spill.
- Provide technical assistance to the organization responsible for the source of the spill.
- Notify the Qualified Individual if a spill response contractor or additional resources outside of the capability of Fort Hood are necessary.

- Obtain necessary in-house Installation Response Team **(IRT)** from:
  1) DPW Environmental Division;
  2) Major Subordinate Commands **(MSC)** personnel and equipment;
  3) Installation military assets.
- Based on assessment, make appropriate initial notifications according to Emergency Notification Phone List found in Section 1.2 or 3.1 of the IRP. If unable to complete, contact DPW Environmental for additional support.
- Initiate containment measures.

1.8.6 Response of Qualified Individual

The Qualified Individual shall verify that the following activities have been conducted:

- Activation of internal alarms and hazard communication systems to notify all facility personnel;
- Notification of all response personnel, as needed;
- Identification of the character, exact source, amount, and extent of the release, as well as other items needed for notification;
- Notification and providing necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;
- Assessment of the interaction of the spilled substance with water and/or other substances stored at the facility and notification of response personnel at the scene of that assessment;
- Assessment of the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water or chemical agents used to control fire and heat-induced explosion);
- Assessment and implementation of prompt removal actions to contain and remove the substance released;
- Coordination of rescue and response actions as previously arranged with all response personnel;
- Use of authority to immediately access funding to initiate cleanup activities; and
- Direct cleanup activities until properly relieved of this responsibility.

The Qualified Individual shall use authority to immediately access funding to initiate cleanup activities in the event that spill-cleanup contractor resources are required.

1.9 FACILITY DIAGRAMS

The following figures are contained in this section of the Fort Hood IRP.

- IRP Figures 1-1A – 1-1F Maps of installation areas with POL sites
- IRP Figures 1-2A – 1-2B Site Drainage Plan Diagram
- IRP Figure 1-3 Evacuation Plan Diagram

1.9.1 Site Plan Diagram

IRP Table 1-6, Installation Site Plan, identifies the regulatory components that are met by this diagram. The Site Survey Figures in Appendix D provide additional information and show the buildings, aboveground storage tanks, underground storage tanks, transfer areas, transformers, and other mobile and portable container at each site addressed in the SPCCP.

IRP TABLE 1-6. SITE PLAN

Site Plan	
Regulatory Component	**ERAP Location(s)**
Facility to scale	IRP Figures 1-1A – 1-1F
Bulk ASTs and USTs	IRP Figures 1-1A – 1-1F
Contents and capacities of bulk ASTs	IRP Figures 1-1A – 1-1F
Drum oil storage areas	IRP Figures 1-1A – 1-1F
Contents and capacities of surface impoundments	IRP Figures 1-1A – 1-1F
Process buildings	IRP Figures 1-1A – 1-1F
Transfer areas	IRP Figures 1-1A – 1-1F
Secondary containment systems	IRP Figures 1-1A – 1-1F
Structures where hazardous materials are stored or handled	IRP Figures 1-1A – 1-1F
Location of communication and emergency response equipment	IRP Figures 1-1A – 1-1F
Location of electrical equipment containing oil	IRP Figures 1-1A – 1-1F
Interfaces between EPA and other agencies for transporting oil	N/A

1.9.2 Site Drainage and Storm Water Plan Diagram

IRP Figure 1-2A shows the storm water drainage at Fort Hood, including the drainage basins. IRP Figure 1-2B shows the Fort Hood Storm Water Management Plan Permit Areas. IRP Table 1-7, Installation Site Drainage and Storm Water Plan Diagram, identifies the regulatory components that are met by IRP Figures 1-1A – 1-1F, IRP Figure 1-2, IRP Figure 1-3, and the Site Survey Figures found in Appendix D of this plan.

IRP TABLE 1-7. SITE DRAINAGE AND STORM WATER PLAN DIAGRAM

Site Drainage And Storm Water Plan	
Diagram Component	**ERAP Location(s)**
Major sanitary and storm sewers, manholes, and drains	IRP Figures 1-1A – 1-1F and site survey figures in Appendix D
Weirs and shut-off valves	None at Fort Hood
Surface water receiving streams	IRP Figures 1-2A and 1-2B
Fire fighting water sources	IRP Figures 1-2A and 1-2B
Other utilities	IRP Figures 1-2A and 1-2B
Ingress and egress of response personnel	IRP Figure 1-3
Response equipment transportation routes	IRP Figure 1-3
Direction of spill flow from discharge points	IRP Figures 1-2A, 1-2B, and Site Survey Figures in Appendix D

1.9.3 Site Evacuation Plan

The *Site Evacuation Plan* is presented in IRP Figure1-3. The primary evacuation routes from the POL storage areas and other locations throughout the base are shown as well as all base entrance/exit gates. Locations of emergency response and communication equipment are provided as well as response personnel ingress and egress routes. IRP Table 1-8, Installation Site Evacuation Plan, identifies the regulatory components that are met by this figure.

IRP TABLE 1-8. SITE EVACUATION PLAN

Site Evacuation Plan	
Diagram Component	**ERAP Location(s)**
Site plan diagram with evacuation routes	Figure 1-3
Location of evacuation regrouping area	Figure 1-3

1.9.4 Other Site Survey Figures

Additional facility figures, reproduced from the SPCCP, are located in Appendix D. A summary list is provided below. Fort Hood DPW (Environmental) also maintains a tank management plan with an electronic database and ARC IMS map showing POL locations at the installation.

Figure	Site
1	AAFES Main Service Station
2	AAFES Picnic Palace and Building 339
3	Hood Road Shoppette
4	Clear Creek Shoppette
5	Comanche Shoppette (WFH)
6	WFH Service Station and Building 70017
7	Warrior Way Shoppette
8	Motor Pools 705, 707, 6972, 6975, 6978
9	16th SIG BN Motor Pool; 53rd QM BN Motor Pool; TOPO Unit; 53rd QM BN Motor Pool
10	MP 4615, 4625
11	Aircraft Maintenance Facilities 6940 and 7007
12	Motor Pools 6950, 6951, 6952, 6953
13	Aircraft Maintenance Facility 7021, 7022, 7052
14	AOP/POL Facility (Buildings 7090, 7086, 7082, 7080, 7084, 7088, 7054, 7046, 7043, 7045, and 7012)
15	Motor Pools 9127, 9513, 9535, 9529
16	Motor Pools 9553, 9563, 9576
17	Motor Pools 11050, 9003, 9112, 9122
18	Motor Pools 11006, 11029, 13009, and 13029
19	704th MSB Motor Pool; 3-66th AR BN Motor Pool; HHC 1 BDE (4ID) Motor Pool
20	2nd CHEM Battalion
21	Motor Pools 15011, 15028, 15060, 17001, and 17030
22	Motor Pools 17047 and 19012
23	TMP
24	NEFF
25	Motor Pools 25020, 26040, 26027, 26041, and 30015

26 Motor Pools 30017, 30033, and 32002
27 215th FSB Motor Pool; 115th FSB Motor Pool
28 Motor Pools 38003, 38014, 35023, and 35014
29 Motor Pools 38023, 38033, 38053, and 38063
30 Transportation Motor Pools 40015, 40001M, 4027M, 40008, 4115, and 4163
31 Motor Pool 44012
32 Motor Pools 90023, 90033 and 90034
33 Motor Pool 90052
34 Motor Pools 90094, 90098, and 90135
35 Motor Pools 90141and 90139
36 Motor Pools 91039 and 91058
37 Sportsman's Club and Buildings 22012 and 22021
38 Officer's Club (Building 5764) and Building 5764
39 Theodore Roosevelt Dining Facility
40 A&W Burgers
41 Raider Dining Facility; DISCOM Dining Facility
42 Popeyes and Burger King
43 Division Support Dining Facility
44 Darnell Hospital DFAC and Buildings 6031 and 36014
45 Burger King
46 SFH Dining Facility
47 Phantom Warrior Bowling and Building 49022
48 Burger King and Buildings 4918, 4932 and 5001
49 Clear Creek Golf Course Facility
50 NFH Dining Facility 2 and Buildings 56420 and 56519
51 Buildings 56447, 56471 and 56508
52 Divarty Dining Facility
53 Coulters BBQ
54 SFH Dining Facility and Buildings 91010 and 91012
55 DPW Classification Unit
56 DPW JP-8 Recycling Facility and Buildings 1950 and 1954
57 DPW Motor Pool
58 BLORA Facility
59 Darnall ACH and Buildings 36001, 36007, 36008 and 36009
60 Clear Creek Golf Course
61 Range Control
62 Fort Hood Type I MSW Landfill
63 North Fort Hood Fire Station
64 NFH Wash Facility
65 NFH Shorthorn Airfield
66 DOL Maintenance Division (DS/GS Maintenance)
67 Buildings 89010 and 89100
68 Railhead
69 WFH Naval Air Building 90047
70 Fort Hood Fire Station #2
71 Ground Approach Radar Facility (RGAAF)
72 Building 94010 (TSC)
73A Bulk Fuel Storage Facility

73B Bulk Fuel Storage Facility and Retail Fuel Dispensing Facility
74 RGAAF Alert Farm and South Ramp
75 Robert Gray AAF RRF
76 HAAF RRF
77 Buildings 13, 111, 1001 and 2200
78 Building 4291
79 Building 8001
80 Building 32002
81 Building 56718
82 Building 56767
83 Building 90145
84 Building 7080
85 Transformer and Generator Locations A
86 Transformer and Generator Locations B
87 Transformer and Generator Locations C
88 Building 41018 and Transformer and Generator Locations D
89 Transformer and Generator Locations E
90 Transformer and Generator Locations F
91 Transformer and Generator Locations G
92 Transformer and Generator Locations H and Buildings 23025, 23202 and 2250
93 Transformer and Generator Locations I
94 Transformer and Generator Locations J
95 Transformer and Generator Locations K
96 Transformer and Generator Locations M
97 Transformer and Generator Locations M
98 Transformer and Generator Locations N
99 Transformer and Generator Locations O
100 Transformer and Generator Locations P
101 Transformer and Generator Locations Q
102 Transformer and Generator Locations R
103 Transformer and Generator Locations S
104 Transformer and Generator Locations T
105 Transformer and Generator Locations U
106 Transformer and Generator Locations V
107 Buildings 56325 and 57003
108 Buildings 7037 and 8680
109 Buildings 40054 and 40060
110 Building 56181
111 Building 56240
112 Building 56271
113 Building 90500
114 Building 48830
115 Building 56175
116 Buildings 90029 and 90075
117 Building 69012
118 Building 90155
119 Building 7081

2. INSTALLATION INFORMATION

General facility information and list of qualified individuals are provided in IRP Form 2-1 Installation Information Form.

IRP FORM 2-1. INSTALLATION INFORMATION FORM

Installation Name: III Corps and Fort Hood

Location (Street Address): Headquarters, III Corps and Fort Hood

City: Fort Hood State: TX Zip: 76544-5028

County: Bell and Coryell Phone Number: (254) 287-3908

Latitude: 31 Degrees 07 Minutes 51 Seconds

Longitude: 97 Degrees 46 Minutes 04 Seconds

Wellhead Protection Area: Not Applicable

Owner: Department of the Army

Owner Location (Street Address): Same as above

Operator (if not Owner): Same as above

Qualified Individual(s):

Primary QI

Name: Billy Rhoads

Position: Fire Chief

Work address: 23025 58th Street, Fort Hood, TX 76544-5021

Home address[1]: 23025 58th Street, Fort Hood, TX 76544-5021

Emergency phone number: (254) 287-3908

Specific response training: Training and certification as per Army Regulation 420-1, Chapter 25; Army Regulation 200-1, Chapter 11; DoD Instruction 6055.06; and DoD Manual 6055.06-M. Training programs meet DoD, NFPA, and HAZWOPER requirements and included certification as a HAZMAT Incident Commander.

First Alternate QI

Name: Coleman Smith

Position: Deputy Fire Chief

Work address: 23025 58th Street, Fort Hood, TX 76544-5021

Home address[1]: 23025 58th Street, Fort Hood, TX 76544-5021

Emergency phone number: (254) 287-3908

Specific response training: Training and certification as per Army Regulation 420-1, Chapter 25; Army Regulation 200-1, Chapter 11; DoD Instruction 6055.06; and DoD Manual 6055.06-M. Training programs meet DoD, NFPA, and HAZWOPER requirements and included certification as a HAZMAT Incident Commander.

Second Alternate QI

Name: Sergio Campos

Position: Assistant Chief of Special Operations

Work address: 23025 58th Street, Fort Hood, TX 76544-5021

Home address[1]: 23025 58th Street, Fort Hood, TX 76544-5021

Emergency phone number: (254) 287-3908

Specific response training: Training and certification as per Army Regulation 420-1, Chapter 25; Army Regulation 200-1, Chapter 11; DoD Instruction 6055.06; and DoD Manual 6055.06-M. Training programs meet DoD, NFPA, and HAZWOPER requirements and included certification as a HAZMAT Incident Commander.

Date of Oil Storage Start-up: 1942

Current Operations: Army military training reservation

Date(s) and Type(s) of Substantial Expansion(s): Ongoing since 1942.

Note:
[1]Due to security reasons, the home address of the qualified individuals is not provided.

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3. EMERGENCY RESPONSE INFORMATION

3.1 NOTIFICATION

This section presents the information that will be needed in an actual emergency involving the discharge of oil or a combination of hazardous substances and oil discharge. IRP Form 3-1 – Emergency Notification Phone List, provides the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. IRP Form 3-2 – Spill Response Notification Form, is a checklist of information that shall be provided to the NRC and other response personnel. All information on the list must be known at the time of notification, or be in the process of being collected. However, spill notification shall not be delayed to collect the information on the list. This section also includes the TCEQ requirement for the follow-up report that is required within 30 days by 30 TAC 327.3.

If the spill is from one of the DESC bulk tanks, there are additional reporting requirements. As per paragraph 3.5 of the DESC Policy Letter I-13, if there is a spill from DESC facilities of 25 gallons or greater on land or in an amount that causes a sheen on water, the facility must report the spill to DESC-WE, the Service Control Point, and the DESC Region as quickly as possible, but not later than 24 hours from discovery. Reporting to DESC-WE and the Staff Duty Officer must be done through the email address. The phone number for the Staff Duty Officer is included in case assistance is needed. DESC contact information is found in IRP Form 3-1. DESC Policy Letter I-13 and a DESC spill report form can be found in Appendix A.

3.2 RESPONSE EQUIPMENT LIST

Fort Hood maintains significant equipment for use in oil and hazardous substance spill response at six locations:

- The HAZMAT trailer located at the Central Fire Station (58th St. and Battalion Ave.);
- The HAZMAT trailer located at Building 88001;
- The DPW-ENV P2 Services Building 1950;
- The Maintenance Division General Support Shop;
- The DOL Maintenance Facility;
- The BLORA.

The inventory of response equipment at these locations is presented in IRP Table 3-1, Spill Response Equipment, provides a list of equipment by function and a list of equipment by location. In the event that the use of equipment beyond Fort Hood's existing capacity becomes necessary, Fort Hood will utilize the services of an emergency response contractor based in the Houston, Texas area.

Fort Hood maintains a stock of spill response equipment listed in this section. Stock items that are depleted are promptly reordered.

3.3 RESPONSE EQUIPMENT TESTING/DEPLOYMENT

Response equipment is inspected and deployed for test purposes according to the schedule presented in IRP Form 3-3 – Response Equipment Testing and Deployment Drill Log. Procedures for inspections and deployment exercises are discussed in Sections 8.1.2 and 8.1.3 of this document.

3.4 PERSONNEL

For the purpose of emergency response, personnel consist of 1) Installation Response Team, 2) DPW Emergency Response Team, and 3) Emergency Response Contractors.

3.4.1 Installation Response Teams

Fort Hood response teams are composed of emergency response personnel from Fort Hood and emergency response contractors (see Section 13) that will respond immediately to an oil spill or other emergency.

Trained personnel from the FHFES HAZMAT Team and DPW Emergency Response Personnel make up the Installation Response Team. On a typical day, 32 firefighters are on duty and the remainder of the 129 firefighters within the FHFES are available around-the-clock to respond to fires, aircraft emergencies, spills and other emergency incidents. The FHFES maintains an up-to-date list of the members of this team. The Fire Department also has Mutual Aid Agreements in place with local jurisdictions. Additional information can be found in Appendix B.

Installation Response Team personnel have received training in the handling of hazardous materials and the FHFES HAZMAT personnel are DoD-certified first responders. The Installation Response Team may be contacted 24 hours a day by dialing 911 on any base telephone. Up-to-date lists of the members of the Installation Response Team are kept at all FHFES stations. The Fire Dispatch has copies of this up-to-date response team lists for their immediate activation, if requested by the FHFES IC.

The Installation Response Team can respond to incidents at most Fort Hood facilities within 4 to 10 minutes. The duties of the Installation Response Team include ensuring the safety of personnel in the surrounding area and the stabilization, containment, and control of the incident. Once facility personnel are safely evacuated from the site and the incident is under control, subsequent response activities (i.e. removal of the spilled material and restoration of the site) are conducted by Fort Hood DPW Emergency Response Personnel and other emergency response contractors.

DPW Emergency Response Personnel include personnel employed by Fort Hood whose duties involve responding to incidents involving hazardous material spills, including oil spills. These individuals are listed on IRP Table 3-2 – DPW Emergency Response Personnel. The duties of the DPW Emergency Response Personnel include mitigation and restoration of the incident site, through the use of appropriately trained facility personnel and contracted OSROs.

3.4.2 Contractor Response Teams

Emergency Response Contractors are those individuals or organizations that can be used by Fort Hood to assist with response actions. The Defense Fuel Support Point **(DFSP)** at Fort Hood is a government-owned contractor-operated facility that stores and supplies bulk fuel to military units at Fort Hood. The DFSP contractor operates under a DESC contract. DESC provides an operations contractor to operate Defense Logistics Agency's **(DLA)** capitalized product facilities at the Bulk Fuel Storage Facility **(BFSF)** and Hood Army Air Field **(HAAF)** Rapid Refuel Facility **(RRF)** within the Main Cantonment Area and the Robert Gray Army Airfield **(RGAAF)** RRF and the RGAAF Alert Tank Farm at the RGAAF Alert Facility **(AF)** within West Fort Hood. However, the U.S. Army Garrison Fort Hood maintains ownership of all real property at

these fuel facilities. The DESC operations' contractor has an OSRO on retainer in the case it is determined the Fort Hood first response capabilities are exceeded. The DESC operations contractor's OSRO is only used to respond to DLA-capitalized fuel spills. When responding to a DLA-capitalized fuel spill, the QI may decide additional spill response resources are needed. In this situation, the QI can request that the DESC operations contractor's terminal manager or his/her assistant activate their contracted OSRO. The terminal manager may also activate the OSRO before directed by the QI. Before or immediately following activation of the OSRO, the terminal manager or his/her assistant will notify the DESC's Contracting Officer's Representative and Contracting Officer. After initial cleanup of the spill, DESC's environmental cleanup contractor will assume the responsibility for long-term cleanup.

USA Environment (the DESC's operations contractor's OSRO) has response personnel and equipment located in New Braunfels, TX and in the Houston, TX area. If requested, they can respond within Tier 1 times. The U.S. Navy Supervisor of Salvage can also be used for the worst-case discharge on Fort Hood. If requested, they can respond within Tier 3 times. If additional resources are needed, U.S. Coast Guard **(USCG)** basic ordering agreement **(BOA)** emergency response contractors are located in several cities within Texas. These contractors are listed on IRP Table 3-3 – Emergency Response Contractors. Additional information can be found in Section 13.

IRP FORM 3-1. EMERGENCY NOTIFICATION PHONE LIST

Reporter's name:_____ Date:_____

Facility name:_____

Owner name:_____

Facility identification number:_____

Date and time of each NRC notification:_____

	Organization	Phone number
1.	National Response Center **(NRC)**:	(800) 424-8802
2.	Qualified Individual:	
	Fire Chief:	(254) 287-3908
	Deputy Fire Chief:	(254) 287-3908
	Assistant Chief of Special Operations:	(254) 287-3908
3.	Fort Hood Fire and Emergency Services **(FHFES)** Response Team: Fire Dispatch	
	Evening phone:	(254) 287-3908
4.	Federal On-Scene Coordinator **(OSC)** – EPA Region 6:	
	24-hour spill reporting:	(800) 424-8802
	Region 6 Emergency Response Center:	(866) 372-7745
5.	State On-Scene Coordinator – Texas Commission on Environmental Quality **(TCEQ)**:	
	24-hour spill reporting	(800) 832-8224
	Region 9 Office, Waco, TX:	(254) 751-0335 (M-F 8-5)
6.	Fire Marshall: Billy Rhoads, Chief FHFES	
	24-hour number:	(254) 287-3098
7.	State Emergency Response Commission **(SERC)**:	(512) 463-7727
	24-hour number:	(800) 832-8224 or (512) 463-7727
8.	State police:	(512) 465-6261
9.	Local police:	911
10.	Fort Hood Military Police	(254) 287-2176
11.	Fort Hood Director of Public Works (normal duty hours)	(254) 287-5707
12.	IOSC Spill Response Program Manager	(254) 432-1012 or (254) 286-6262
13.	Fort Hood Environmental Chief (normal duty hours)	(254) 287-6499
14.	Fort Hood Spill Response (24-hour FHFES)	(254) 287-3908

15. Local Emergency Planning Committee **(LEPC)**:
    Bell County LEPC: ..... (254) 933-5587
    Evenings: Sheriff's office ..... (254) 933-5412
    Coryell County LEPC: ..... (254) 223-4123
    Evenings: Sheriff's office ..... (254) 865-7201
16. Local water supply system:
    Bell County Water Control and Improvement District No. 1
    Belton Lake Water Treatment Plant (normal business hours) ..... (254) 526-6343
    24-hour phone: ..... (254) 939-2481
17. Weather Report:
    National Weather Service Forecast Office, Fort Worth, TX ..... (817) 429-2631
18. Local television/radio station for evacuation notification:
    Contact Fort Hood Public Affairs for all local television/radio station contacts for evacuation notifications ..... (254) 291-2591
19. Hospitals: Darnall Army Community Hospital ..... (254) 288-8001
    Ambulance ..... (254) 288-8112
20. Additional notifications
    Southwest Region Office, Installation Management Agency ..... (210) 295-2267
    III Corps Operations Center ..... (254) 287-2506/2520
21. U. S. Army Environmental Center ..... (410) 436-7070
    Central Regional Environmental Office ..... (816) 983-3548
22. Oil Spill Removal Organizations **(OSRO)**:
    If directed by the QI, Incident Commander **(IC)**, or Installation On-Scene Coordinator **(IOSC)**, contact the following OSROs:
    (a) BOA Contractors ..... See Section 13
    (b) USA Environment, LP. ..... (281) 996-4373 (24-hour)
    (c) U. S. Navy Supervisor of Salvage ..... (202) 781-1731 (day)
    ..... (202) 781-3889 (after-hours)
23. For spills from DESC tanks:
    (a) DESC-WE and Staff Duty Officer ..... desc.spillreports@dla.mil
    (b) DESC Staff Duty Officer ..... (703) 767-8420 (24-hour)
    (c) Army Petroleum Center ..... APC.HELPDESK@conus.army.mil
    (d) DESC America East ..... DESC-AM.spillreports@dla.mil
    ..... (713) 718-3883
    ..... (713) 718-3899 (fax)

IRP FORM 3-2. FORT HOOD SPILL RESPONSE NOTIFICATION FORM

NOTE: This form must be submitted to the Fort Hood DPW Environmental Division upon completion.

1. Date and time of incident: _____

2. Name and unit of the individual reporting the incident: _____

_____

3. Phone number(s) of the reporting source: _____

_____

7. Location of spill (building #) and what kind of surface was contaminated: (pavement, dirt, water, creek, etc.): _____

_____

_____

_____

_____

8. Material spilled or leaking, and the amount: _____

_____

9. Direction and path of spill: _____

_____

_____

7. Source of spill: _____

_____

8. Size of container leaking: _____

_____

9. Nature of incident (leak, explosion, spill, fire, or dumping): _____

_____

_____

10. Other Hazardous Materials in the area of the spill: _____

_____

11. Personnel involved in clean-up: _____

_____

_____

12. Actions taken to respond, control, and mitigate the incident: _____

_____

_____

_____

_____

_____

_____

_____

13. Additional information: _____

_____

_____

_____

_____

_____

_____

_____

_____

Signature of Individual
Reporting Spill

Instructions: This part of the form should be completed as soon as possible during the initial site assessment phase by the IC, IOSC, or another designated emergency response official. Answer as many of these questions as possible without endangering personnel. This information should be used when conducting initial notification of regulatory agencies. **Notification of regulatory agencies must be coordinated through the DPW Environmental Division. This form must be submitted to the Fort Hood DPW Environmental Division upon completion.**

Date and time: _____

Spill location: _____

Name and telephone of IOSC: _____

_____

Nearby population: _____

Number and type of injuries: _____

_____

Number of fatalities: _____

Type of incident: ___leak ___fire ___ spill ___explosion ___ transportation accident

Time of release or discovery: _____

Spill classification: _____
Minor (oil – less than 1,000 gal; HAZMAT – minimal threat to public health/welfare)
Medium (oil – between 1,000 and 10,000 gal; HAZMAT – not classified as minor or major)
Major (oil – greater than 10,000 gal; HAZMAT – substantial threat to public health/welfare)

Substance, estimated amount discharged/released, and unit of measure: _____

Material identifying marks (manifests, placards, labels, ID and/or NFPA numbers, etc.): _____

_____

Characteristics of Spill (odor, color, gas, liquid, solid, etc. if detectable): _____

_____

Cause of incident: _____

_____

_____

Container type and total capacity (truck, railcar, drum, tank, etc.): _____

_____

_____

Affected areas: _____

_____

Potential dangers (fire, explosion, toxic vapor, etc.): _____

_____

Weather conditions: _____

Wind direction: _____

Terrain conditions (slope, surface type): _____

Nearby sensitive environments (water bodies, vegetation, etc.): _____

_____

Personnel at scene: _____

_____

Corrective actions to eliminate and remove pollutant: _____

_____

Estimated time and date for completion of remediation: _____

Assistance required: _____

News media reaction (anticipated or actual): _____

Other information: _____

_____

_____

EMERGENCY NUMBERS
Fort Hood Fire and Emergency Services **(FHFES)**: 911
National Response Center: (800) 424-8802
Texas Spill Reporting: (800) 832-8224
CHEMTREC: (800) 424-9300
Instructions: This part of the form should be completed as soon as possible during the initial site assessment phase by the IC, IOSC, or another designated emergency response official.

Answers to these questions meet Texas requirements as found in Texas Administrative Code rule 30 TAC 327.3.

1. The Name, Address, and Telephone Number of the Person Making the Telephone Report:

   _____

   _____

2. The Date, Time, and Location of the Spill or Discharge: _____

   _____

3. A Specific Description or Identification of the Oil, Petroleum Product, Hazardous Substances or Other Substances Discharged or Spilled:

   _____

   _____

   _____

4. An Estimate of the Quantity Discharged or Spilled: _____

   _____

5. The Duration of the Incident:_____

   _____

6. The Name of the Surface Water or a Description of the Waters in the State Affected or Threatened By the Discharge or Spill:

   _____

   _____

   _____

7. The Source of the Discharge or Spill: _____

   _____

   _____

   _____

8. A Description of the Extent of Actual or Potential Water Pollution or Harmful Impacts to the Environment and an Identification of Any Environmentally Sensitive Areas or Natural Resources-at-Risk:

_____

_____

9. If Different from Paragraph (1) of This Subsection, the Names, Addresses, and Telephone Numbers of the Responsible Person and the Contact Person at the Location of the Discharge or Spill:

_____

10. A Description of Any Actions That Have Been Taken, Are Being Taken, and Will Be Taken to Contain and Respond to the Discharge or Spill:

_____

_____

_____

_____

11. Any Known or Anticipated Health Risks: _____

_____

12. The Identity of Any Governmental Representatives, Including Local Authorities or Third Parties, Responding To the Discharge or Spill:

_____

_____

13. Any Other Information That May Be Significant To the Response Action:

_____

_____

_____

_____

_____

IRP TABLE 3-1. SPILL RESPONSE EQUIPMENT

Note: this table includes a listing of operational equipment by function and a listing of the operational equipment by location.

IRP TABLE 3-1A. SPILL RESPONSE EQUIPMENT BY FUNCTION

Skimmers/Pumps						
Type	**Model**	**Year**	**Quantity**	**Capacity gal/min**	**Storage Location**	**EDRC [1] (gal/day)**
Skimmer	Skim-Pak 4300 SH	JAN07	2	95 each	Bldg 88001	54,720 [1]
1,200-gallon Vacuum Truck (#825)	Dominator	UNK	1	60	Bldg 1950	43,200 [2]
3,000-gallon Vacuum Truck (#419)	Dominator	UNK	1	60	Bldg 1950	43,200 [2]
3,232-gallon Vacuum Truck (#643)	UNK	UNK	1	132	Bldg 1950	95,040 [2]
3,300-gallon Vacuum Truck (#846 and #847)	Dominator	UNK	2	60 ea	Bldg 1950	86,400 [2]
					Total EDRC	**322,560**

Note:

1. The EDRC = gpm x 60 min/hour x 24 hour/day x 20% efficiency factor for Skim-Pak
2. The EDRC for all vacuum truck was computed by following the alternative formula found in Section 6.3.1 to Appendix E of 40 CFR 112. Vacuum truck performance tests conducted on 29 June 2009 resulted in the actual verified performance data in discharge conditions identified for these vacuum trucks. Fort Hood has identified sufficient resources to support operations for 12 hours each day.

Booms					
Type	**Model**	**Quantity**	**Absorbency**	**Size (Length)**	**Storage Location**
Containment	UNK	10 each	N/A	100’ each (6” floatation and 12” skirt)	Bldg 88001 (five lengths on two trailers each)
	Slickbar	6 each	N/A	100’ each (6” floatation and 12” skirt)	Bldg 88001 (six lengths on one trailer)
	Slickbar	5 each	N/A	50’ each	BLORA, Bldg 20119
Absorbent Boom	33033	4 boxes @ 6 per box	~ 2 gallons each	8’ x 3”	Bldg 88001
	SA1010	2 each	6 gallons each	10’ x 5”	
	51021	6 boxes @ 4 per box	~ 3 gallons each	10’ x 4”	
	2048	10 each	0.75 gallons each	4’ x 3”	Response Truck, Bldg 4219
	HA1010	1 each	9 gallons each	10’ x 5”	Fire Department HAZMAT Trailer
	HA2010	2 each	16 gallons each	10’ x 8”	
	BOM304	3 each	12 gallons each	10’ x 8”	HAZMAT Response Vehicle, DOL Maintenance, Bldg 80030
Total Absorbency = >216.5 gallons					

Dispersants

Fort Hood is not authorized to store and does not maintain dispersants on base.

Dispersant Equipment

Fort Hood does not maintain dispersant dispensing equipment.

Absorbents

Type	Model	Quantity	Absorbency	Size	Storage Location
Spill Pads (Mats)	MAT 203	1 bag	22 gallons/bag	20” x 15” 100 pads/bag	Fire Department HAZMAT Trailer, Station 5
	MAT 403	1 bag	22 gallons/bag	20” x 15” 100 pads/bag	
	MAT 404	2 bags	33 gallons/bag	36” x 24” 50 pads/bag	
	MAT 231	1 bag	11 gallons/bag	50 pads/bag	Response Truck, Bldg 4219
	MAT 310	1 bag	11 gallons/bag	50 pads/bag	
	MAT 404	1.5 bags	33 gallons/bag	36” x 24” 50 pads/bag	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
	MAT 415	5 bags	11 gallons/bag	20” x 15” 50 pad/bag	Bldg 88001
Spill Pillows	HR7015	1 box	10 gallons/box	17” x 16” x 2” 10 pillows/box	Fire Department HAZMAT Trailer, Station 5
	PIL203	4 ea	1 gallons each	17” x 16” x 1”	Response Truck, Bldg 4219
		4 boxes	10 gallons/box	17” x 16” x 1”	Bldg 88001
Absorbent Socks	SKM203	1 box	15 gallons/box	3” x 10’ 6 socks/box	Fire Department HAZMAT Trailer, Station 5
	104PS	3 boxes	10 gallons/box	3” x 48” 10 socks/box	
	2048	3 box	15 gallons/box	3” x 48” 20 socks/box	
	124CR	4 boxes	9 gallons/box	3” x 46” 12 socks/box	
	124CR	2 boxes	9 gallons/box	3” x 46” 12 socks/box	Bldg 88001
	104PS	1 box	10 gallons/box	3” x 48” 6 socks/box	
	Poly Socks	20 ea	1.67 gallons/sock	3’ x 48”	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Pan	ABS Absorbent	1 package	UNK	UNK	Fire Department HAZMAT Trailer, Station 5
Loose Absorbent	Cotton	2 bags	UNK	UNK	Fire Department HAZMAT Trailer, Station 5
	SA8010	2 bags	5 gallons/bag	6 lbs each	

Absorbents					
Type	**Model**	**Quantity**	**Absorbency**	**Size**	**Storage Location**
Loose Absorbent	HA8010	1 box	5 gallons/box	6.5 lbs each	Fire Department HAZMAT Trailer, Station 5
	Absorbent	2 bags	UNK	UNK	
	Sphagsorb	1 box	UNK	UNK	
	Soakaholic 1173	1 box	UNK	UNK	
	Oil Gator	32 bags	18 gallons/bag	30 lbs per bag	Bldg 88001
	Oil Sponge	4 bags	19 gallons/bag	30 lbs per bag	
	HAZORB	10 jugs	UNK	UNK	
	Oil Gator	2 bags	18 gallons/bag	30 lbs per bag	Response Truck, Bldg 4219
	Oil Sponge	2 bags	19 gallons/bag	30 lbs per bag	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
	Absorbent	200 lbs	UNK	UNK	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Total Absorbency = 1,220+ gallons					

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Chlorine Institute Emergency Kit- "A"	1 ea	Fire Department HAZMAT Trailer, Station 5 – Floor Area
Chlorine Institute Emergency Kit- "B"	1 ea	
Chlorine ERK "A"	1 ea	
Chlorine ERK "B"	1 ea	
Chlorine ERK "C"	1 ea	
Heat Buster Fan	1 ea	
Traffic Cones	29 ea	
Step Stools	9 ea	
Wisk Brooms	2 ea	
Lab Pack Drum (20 gal)- with lids	3 ea	
Lab Pack Drum (95 gal)- with lid	1 ea	
Lab pack Drum (75 gal)- with lid	1 ea	
Bucket Lid/ Locking (20 gal)	4 ea	
Disperse Fuel Spray- 5 gallon cans	2 e	
Water Spray Nozzles	5 ea	
Water Hose Manifold	1 ea	
Water Hose	7 ea	
5-Gallon Buckets	5 ea	
Rubberized Particulate Bucket	1 ea	
EZ UP Tent	3 ea	
Truck Brushes	2 ea	
Scrub Brush	1 ea	
Brush Head	1 ea	
Plastic Shovels	4 ea	

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Plastic Helmets	18 ea	Fire Department HAZMAT Trailer, Station 5 – Floor Area
Engineer Tape	1 roll	
Cotton Bags	2 ea	
Generator (Honda)	1 ea	
Weather Kit	1 ea	
Pick Axe	1 ea	
Hydrant Wrench	1 ea	Fire Department HAZMAT Trailer, Station 5 – Shelves
M9 Paper (1989)	9 ea	
Blankets (Yellow)	5 ea	
Push-Broom Heads	4 ea	
Signs (Danger Chemical Spill)	7 ea	
Marking Paint (Florescent Orange)	1 ea	Fire Department HAZMAT Trailer, Station 5 – Red Boxes
Flags- Assorted Titles	8 ea	
Flag Stand	1 ea	
Large Bolt Cutter	1 ea	
Decontamination Starter Kit	1 ea	
Mercury Spill Kit	1 ea	
Patches (Pat Locks)	6 ea	
Paper Towels	1 rolls	Fire Department HAZMAT Trailer, Station 5 – Cabinet Back
Barricade Tape	4 rolls	
Emergency Response Guide	6 ea	
Chemical Tape	1 ea	
Flashlights (without batteries)	6 ea	
Measuring Tape (12-Foot)	1 ea	
Hand Sanitizers	2 bottles	
Sterile Jars	2 ea	
Shower Heads	2 ea	
Bailing Wire	1 roll	
Tent Stakes	8 ea	
Plumbers Tape	1 roll	
Dynet Fat Wax	1 ea	
Binoculars	1 ea	
Plastic Bags (Small)	1 ea	
Compass	1 ea	
Wooden Shop Brooms	3 sets	Bldg 88001
Cotton Head Mop	1 set	
Plastic Rake	1 set	
Fire Extinguisher (Small)	1 canister	
Wooden Handle Squeegee	12 sets	
Plastic Shovel (4’ Tall)	3 sets	
Metal Shovel (6’ Tall)	4 sets	

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Plastic Bucket (5-Gallon)	2 ea	Response Truck, Bldg 4219
Plastic Scoops	2 sets	
Brooms	3 sets	
Plastic Shovels	3 sets	
Hand-held Squeegee (12“)	1 set	
Digital Camera	1 ea	
Binoculars	1 pair	
Wrenches	2 ea	
Allen Wrenches	1 set	
Screw Drivers	2 ea	
Pipe Wrench	1 ea	
Crescent Wrench	1 ea	
Nylon Tie	1 package	
Fire Extinguisher	1 ea	
First Aid Kit	2 kits	
Chain (30’)	1 ea	
GPS Unit	1 ea	
Sockets	1 set	

Hand Tools		
Type of Tool	**Quantity**	**Storage Location**
Shovels	2 ea	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Brooms (3 Push, 2 Stick)	5 ea	

Communications Equipment			
Type	**Model**	**Quantity**	**Storage Location**
Vehicle Mount Radios	MACOM	41	Fire Department Vehicles
Handheld Portables	MACOM P7100	82	Fire Department Trucks/Individuals
Base Stations	MACOM	11	Stations 1 thru 5/Comm Center/CP Van
Mobile Communications Unit	UNK	1	Guardian Shed
Base stations	UNK	UNK	Various Locations on Fort Hood, including Police, Public Works, Emergency Management, and Spill Response Teams
Mobile stations	UNK	UNK	
Handhelds	MACON P7100	>400 ea	
Radio/Cell Phones	Nextel	UNK	
Radio Harnesses	UNK	10 ea	Fire Department HAZMAT Trailer, Station 5 – Red Boxes
Radio Microphone and Ear Set	UNK	1 ea	Fire Department HAZMAT Trailer, Station 5 – Cabinet Back
Note: Operating frequencies vary and will be established by the IC at the time of the incident and noted in the Communications Plan.			

Fire Fighting and Personal Protective Equipment		
Type of Equipment	**Quantity**	**Storage Location**
Protective Clothing		
Rubber Boots – Assorted Sizes	20 pairs	Fire Department HAZMAT Trailer, Station 5 – Shelves
Kappler Coverall Suits	4 boxes	
Tyvek Saranex Suits	1 box	
Gloves (Assorted Sizes for HAZMAT)	1 box	
Goggles	1 pair	Fire Department HAZMAT Trailer, Station 5 – Cabinet Back
Latex Gloves (Powder Free)	1 box	Fire Department HAZMAT Trailer, Station 5 – Cabinet Front
Latex Gloves (Powder)	1 box	
Level A Kappler Responders	15 ea	Fire Department HAZMAT Trailer, Station 5 – Outside of Trailer
Level B	20 ea	
Trellborge Level A (Model HPS)	10 ea	
Medium Vinyl Gloves	1 package	Response Truck, Bldg 4219
Blue Exam Gloves	20 pair	
Rubber Gloves	2 pair	
Ansell Edmont Gloves	1 pair	
Ear Protection	2 sets	
Safety Glasses	2 pair	
Tyvek – White (X Large)	5 pair	
Tyvek – Blue (X Large)	3 pair	
Tyvek – Blue (Large)	2 pair	
Rubber Boots (Size 9)	2 pair	
Emergency Vests	2 ea	
White Plastic Hard Hats	2 ea	
Tyvek – White (Large)	32 ea	Bldg 88001
Tyvek – Yellow (Large – With Hood)	19 ea	
Tyvek- Yellow (X Large –With Hood)	10 ea	
Tyvek – Blue (Large)	3 ea	
Bootie (Disposable Foot Covering)	30 pair	
Aprons (Disposable Aprons)	8 ea	
Level B – Suit (Green – Full Capsulated)	2 ea	
Life Vests	10 pair	
Protective Glasses	7 pair	
Ear Protection	2 sets	
Face Shields (Item # 22751)	4 sets	
Green Rubber Gloves (Size Large)	2 boxes	
Rubber Boots	2 pair	
Rubber Hipsters	1 pair	
Heavy Gloves	4 pairs	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
Goggles	2 pairs	
Face-Shields	2 ea	
Leather Gloves	2 pairs	

Fire Fighting and Personal Protective Equipment		
Type of Equipment	**Quantity**	**Storage Location**
SCBA/Respirators		
MSA Air Bottles (spares)	8 ea	Fire Department HAZMAT Trailer, Station 5 – Floor Area
MSA Pack with mask and bottle	1 ea	
Scott Pack with bottle	1 ea	
Scott Packs	2 ea	
Wilson Respirators (# C-9D 301)	3 ea	Response Truck, Bldg 4219
Respirators	2 ea	
Air Tank with Harness	4 sets	Bldg 88001
Wilson Respirators (#C-9D 301)	12 pair	
Half-Mask Respirator	1 set	
Respirator Facepiece (# 7200s)	12 sets	
Respirator Air Filters (# 7000)	1 set	
Assorted Equipment		
Foam Jets	2 ea	Fire Department HAZMAT Trailer, Station 5 – Shelves
Foam Inductors – 03 @ 1.5” and 02 @ 2.5”	5 ea	
NBC Detector Kit (M256A1)	1 ea	
Plug/Dike (5-Gallon)	1 ea	
Stainless Steel Sprayers (11/2-Gallon)	2 ea	
EZ UP Shelters (Small)	1 ea	
Shower Heads	2 ea	
New Pig Pipe Patch Kit	1 ea	Fire Department HAZMAT Trailer, Station 5 – Black Boxes
General Repair Kit	2 ea	
Drum Repair Kit	1 ea	
Brass Tool Kits	2 ea	
Tool Boxes – Assorted Tools/General	1 ea	Fire Department HAZMAT Trailer, Station 5 – Red Boxes
HAZMAT Response Kit (Series “C1”)	1 ea	
HAZMAT Response Kit (Series “C”)	1 ea	
HAZMAT Response Kit (Series “AE”)	1 ea	
Portable Decontamination Showers	2 ea	
Water Hose Connectors (6” Pieces)	2 ea	Fire Department HAZMAT Trailer, Station 5 – Cabinet (Back)
Earth Soap (1-Gallon Container)	6 ea	Bldg 88001
Hydro Clean (1-Gallon Container)	3 ea	
Spill X-A (5-Gallon Bucket)	4 ea	
Spill X-C (5-Gallon Bucket)	3 ea	
Bleach (Six 1-Gallon Jugs per Case)	9.5 cases	
Mercury Spill Kit	6 ea	
Spill Kit	1 ea	
Lab Packs	3 ea	

Fire Fighting and Personal Protective Equipment		
Type of Equipment	**Quantity**	**Storage Location**
Assorted Equipment		
Mercury Spill Kit	2 ea	Response Truck, Bldg 4219
Acid Cleaner (3-Gallon Bucket)	1 ea	
Rubber Tubs	2 ea	
Pop-up Pool	1 ea	
EAG A-H	1 ea	Fire Department HAZMAT Trailer, Station 5 – Cabinet Front
EAG I-Z	1 ea	
Suit Inspection Log Book	1 ea	
MSA Maintenance Log Book	1 ea	
Genium's Hand Book	3 ea	
Hazardous Material Book	1 ea	
Emergency Handling Hazardous Material Book (1992 edition)	2 ea	
AIM Detectors (need service)	5 ea	Fire Department HAZMAT Trailer, Station 5 – Outside of Trailer
RKI (Model 82 A) Detector	1 ea	
RAE Detectors	2 ea	
Mini RAE Plus (PID) Detectors	2 ea	
APD 2000 Detectors	8 ea	
Air Cart	1 ea	
Scott SAR Cart	1 ea	
MSDS Book	1 ea	HAZMAT Response Vehicle DOL Maintenance, Bldg 80030
250-Gallon Containment Pool	1 ea	
160-Gallon Containment Pool	1 ea	

Other Miscellaneous Equipment (Heavy Equipment, Boats, Motors)		
Type of Equipment	**Quantity**	**Storage Location [1]**
Spill Response Trucks	5 ea	Bldg 4219
Boom Trailer with 500' of Boom	2 ea	Bldg 88001
Boom Trailer with 600' of Boom	1 ea	
16' Flat-Bottomed Boat and Trailer	2 ea	
20' Spill Response Trailer	1 ea	
Excavators	2 ea	Bldg 4489 DPW Maintenance Division General Support Shop
Dump Trucks [6@ 8 tons 10 cubic yards), 4@10 tons (12 cubic yards)]	10 ea	
Motor Graders	8 ea	
Backhoe	6 ea	
Front End Loaders (2.5 cubic yard)	3 ea	
Tractors	4 ea	
Scrapers	3 ea	
Bobcat (0.375 cubic yard)	2 ea	

Other Miscellaneous Equipment (Heavy Equipment, Boats, Motors)		
Type of Equipment	**Quantity**	**Storage Location [1]**
Bulldozers	4 ea	Bldg 4489 DPW Maintenance Division General Support Shop
Forklifts	11 ea	
Trailer, Low bed 60 Ton	1 ea	
Trailer, Fuel 5K GAL	1 ea	
Trailer, 40 Ton (Semi)	1 ea	
Trailer Gooseneck 30'	1 ea	
Trailer Gooseneck 32'	1 ea	
Trailer Gooseneck 32' Flatbed	1 ea	
Trailer, Small Utility Flatbed	1 ea	
Bucket Truck	7 ea	
Auger Truck	2 ea	
Boom Truck	1 ea	
Crane Truck	1 ea	
Boring Machine	1 ea	
Ditch Machine	1 ea	
Lifts (3 scissor and 1 boom)	4 ea	

Note:
1. Vehicles are used for normal operational missions. Contact the applicable storage location for exact location on any given day.

Fort Hood Fire Fighting Equipment				
Vehicle	**Capacity**			**Delivery Pumping Rate (gpm)**
	Water	**Foam**	**Dry Chemical**	
E-One Pumper (Eng-1)	500	40	N/A	1000
E-One Pumper (Eng-2)	500	40	N/A	1000
E-One Pumper (Eng-3)	500	40	N/A	1000
E-One Pumper (Eng-4)	750	40	N/A	1000
E-One Pumper (Eng-5)	500	40	N/A	1000
E-ONE QUINT 110’ (Truck-1)	500	0	0	1250
E-One Titan ARFF (Crash-22)	1500	200	500 lbs	1250
E-One Titan ARFF (Crash-23)	1500	200	500 lbs	1250
Oshkosh Stryker ARFF (Crash-21)	3000	420	450 lbs	1950
Oshkosh P-19 ARFF (Crash-32)	1000	130	N/A	1000
Amertek (Crash-33)	1000	130	N/A	1000
F-550 Brush Truck (Attack-1)	400	5	0	250
F-550 Brush Truck (Attack-2)	400	5	0	250
F-550 Brush Truck (Attack-3)	400	5	0	250
F-550 Brush Truck (Attack-4)	400	5	0	250

Fort Hood Fire Fighting Equipment				
Vehicle	Capacity			Delivery Pumping Rate (gpm)
	Water	Foam	Dry Chemical	
F-550 Brush Truck (Attack-5)	400	5	0	250
Freightliner Water Tender (Tanker-2)	2250	70	0	500
Freightliner Water Tender (Tanker-4)	2250	70	0	500
International Water Tender (Tanker-3)	1000	60	0	500
AM General-M925-Series (Brush-2)	1000	0	0	250
AM General-M925-Series (Brush-3)	1000	10	0	250
AM General-M925-Series (Brush-4)	1000	10	0	250
AM General-M925-Series (Brush-5)	1000	10	0	250
Track Vehicles (Track-844)	1000	0	0	250
Track Vehicles (Track-845)	1000	0	0	250
Track Vehicles (Track-798)	1000	0	0	250
Track Vehicles (Track-799)	1000	0	0	250
E-One Rescue Truck (Rescue-1)	N/A	N/A	N/A	N/A
International Rescue Truck (Rescue-2)	N/A	N/A	N/A	N/A
Hazmat Trailer (Haz-Mat 1)	N/A	N/A	N/A	N/A
Haz-Mat Decontamination Trailer (Decon-1)	N/A	N/A	N/A	N/A
Technical Rescue Trailer	N/A	N/A	N/A	N/A
SCOTT Air Mobile Trailer	N/A	N/A	N/A	N/A
Patten Inflatable Rescue Boat	N/A	N/A	N/A	N/A
Mobile Command Post	N/A	N/A	N/A	N/A
TOTALS	**26,750 gals**	**1,535 gals**	**1,450 lbs**	**17,200gpm**

IRP TABLE 3-1B. SPILL RESPONSE EQUIPMENT BY LOCATION

Hazardous Materials Trailer - FHFES)
(As provided by FHFES July 2005)

QTY	ITEM
	HAZ MAT TRAILER/ STATION 5- FLOOR AREA
1	Chlorine Institute Emergency Kit- "A"
1	Chlorine Institute Emergency Kit- "B"
1	Chlorine ERK "A"
1	Chlorine ERK "B"
1	Chlorine ERK "C"
1	Heat Buster Fan
29	Traffic Cones
9	Step Stools
2	Wisk Brooms
3	Lab Pack Drum (20 gal)- with lids

QTY	ITEM
	HAZ MAT TRAILER/ STATION 5- FLOOR AREA
1	Lab Pack Drum (95 gal)- with lid
1	Lab pack Drum (75 gal)- with lid
4	Bucket Lid/ Locking (20 gal)
2	Disperse Fuel Spray- 5 gallon cans
8	MSA Air Bottles (spares)
1	MSA Pack with mask and bottle
1	Scott Pack with bottle
2	Scott Packs
5	Water Spray Nozzles
1	Water Hose Manifold
7	Water Hose
5	5-gallon buckets
1	Rubberized Particulate Bucket
3	EZ UP Tent
2	Truck Brushes
1	Scrub Brush
1	Brush Head
4	Plastic Shovels
18	Plastic helmets
1	Engineer Tape (roll)
2	Cotton Bags
1	Generator (Honda)
1	Weather Kit
1	Pick Axe
	SHELVES
20	Rubber Boots (Pairs)- Assorted Sizes
3	Pigs (2048)- Boxes
1	Soakaholic (1173)- Box
1	Hydrant Wrench
2	Foam Jets
5	Foam Inductors- (3) 11/2” / (2) 21/2”
9	M9 Paper (1989)
1	ABS Absorbent Pan (Package)
5	Blankets (Yellow)
2	Cotton Absorbent (Bags)
1	Sphagsorb (Absorbent/ Box)
2	Absorbent Pulp (SA 8010/Boxes)
1	Absorbent Pulp (HA 8010/Boxes)
4	Push broom Heads
3	Pig Skimmers (104 PS/ Boxes)
1	Absorbent Dike (HA 1010)
2	Absorbent Dike (HA 2010)

QTY	ITEM
	SHELVES
3	Absorbent Socks (124 CR/ Boxes)
1	Absorbent Sock (SKM 203)
4	Kappler Coverall Suits (Boxes)
1	Tyvek Saranex Suits (Box)
7	Signs (Danger Chem. Spill)
1	Gloves (Assorted Sizes/ Hazardous Material)
1	NBC Detector Kit (M256A1)
1	Plug/ Dike (5-gallon)
1	Pig Mat (MAT 203)
1	Absorbent Pillows (HR 7015)
1	Economy Mat (MAT 403)
2	Stainless Steel Sprayers (11/2 gallon)
1	EZ UP Shelters (small) box
2	Shower Heads
2	Absorbent Pads (MAT 404/ Boxes)
	BLACK BOXES
1	New Pig Pipe Patch Kit
2	General Repair Kit
1	Drum Repair Kit
2	Brass Tool Kits
	RED BOXES
1	Tool Box- Assorted Tools/ General
10	Radio Harnesses
1	Marking Paint (Fluorescence Orange)
1	Hazardous Material Response Kit (Series “C1”)
1	Hazardous Material Response Kit (Series “C”)
1	Hazardous Material Response Kit (Series “AE”)
8	Flags- Assorted Titles
1	Flag Stand
1	Large Bolt Cutter
1	Decontamination Starter Kit
1	Mercury Spill Kit
6	Patches (Pat Locks)
2	Absorbent (Bags)
2	Portable Decontamination Showers (1 Complete/ 1 Incomplete)
	CABINET (BLACK)
1	Paper Towels (Roll)
4	Barricade Tape (Roll)
6	Emergency Response Guide
1	Chemical Tape
6	Flashlights (without batteries)
1	Measuring Tape (12 ft)

QTY	ITEM
	CABINET (BLACK)
2	Hand Sanitizers (Bottles)
1	Goggles
2	Sterile Jars
2	Shower Heads
1	Bailing Wire (Roll)
2	Water Hose Connectors (6" Pieces)
8	Tent Stakes
1	Radio Microphone and ear set
1	Plumbers Tape (Roll)
1	Dynet Fast Wax
	CABINET FRONT
1	EAG A-H
1	EAG I-Z
1	Suit Inspection Log Book
1	MSA Maintenance Log Book
1	Binoculars
3	Genium's Hand Book
1	Hazardous Material Book
2	Emergency Handling Hazardous Material Book (1992 edition)
1	Plastic Bags (Small)
1	Latex Gloves (Powder Free)
1	Latex Gloves (Powder)
1	Compass
	OTHER HAZ-MAT EQUIPMENT (OUTSIDE OF TRAILER)
5	AIM Detectors (need service)
1	RKI (Model 82 A) Detector
2	RAE Detectors
2	Mini RAE Plus (PID) Detectors
8	APD 2000 Detectors
15	Level A Kappler Responders
20	Level B
10	Trellborge Level A (Model HPS, currently not in service)
1	Air Cart
1	Scott SAR Cart

Hazardous Materials Warehouse Response Inventory (Building 88001)
(As provided by DPW Environmental Division, March 2009)

Inv. Number	Quantity	Unit	Item	Description	Uses
1	4	Bags	Oil Sponge	Dry Sweep For POL Spills 60 Bags/Pallet	POL On Hard Surfaces

2	32	Bags	Oil Gator		
3	1 Case	Gallons	Earth Soap	Six 1-Gal Jugs/Case	
4	3	Gallons	Hydro Clean		POL On Spills
5	4	Buckets	Spill-X-A	5-Gals/Bucket	Acid/Neutralizer
6	3	Buckets	Spill-X-C	5-Gals/Bucket	Caustic/Neutralizer
7	9.5	Cases	Bleach	Six 1-Gal Jugs/Case	
8	6	Kits	Mercury Kits		
9	10	Containers	Hazorb Absorbent	Item # 21080/Granuals	
10	5	Bales	Oil Pads	50 Pads/Bale/White	
11	2	Boxes	Absorbent Socks	3"X 46" #124CR 12/Box	
12	1	Box	Absorbent Skimmer	#104PS 10 Box	
13	4	Boxes	Absorbent Boom	#33033 3"X 8' 6/Box	
14	1	Box	Absorbent Boom	#Sa1010 5"X 10' 2/Box	
15	1	Box	Spill Kit	All In 1 Box	
16	6	Boxes	Mesh Boom	#51021 4"X 10'/ 4/Box	
17	4	Boxes	Absorbent Pillows		
18	3		Lab Packs		Contains Cleanup Materials
19	3	Sets	Brooms	Shop Wooden Brooms	
20	1	Set	Oil Mop	Cotton Head Mop	
21	1	Set	Rake	Plastic	
22	1	Canister	Fire Extinguisher	Size Small	
23	12	Sets	Squeegees	Wooden Handles	
24	3	Sets	Shovels	Plastic 4-Foot Tall	
25	4	Sets	Shovels	Metal 6-Foot Tall	

Hazardous Materials Warehouse PPE Inventory (Building 88001)
(As provided by DPW Environmental Division, March 2009)

Inv. Number	Quantity	Unit	Item	Description	Uses
1	32	Each	Tyvek – White	Large	
2	19	Each	Tyvek – Yellow	Large – With Hood	
3	10	Each	Tyvek – Yellow	X Large –With Hood	
4	3	Each	Tyvek – Blue	Large	
5	30	Pair	Bootie	Disposable Foot Covering	
6	8	Each	Aprons	Disposable Aprons	
7	2	Each	Level B - Suit	Green - Full Capsulated	
8	10	Pair	Life Vests		
9	7	Pair	Protective Glasses		
10	2	Sets	Ear Protection		
11	4	Sets	Face Shields	Item # 22751	
12	2	Boxes	Green Rubber Gloves	Size Large	
13	2	Pair	Rubber Boots		

14	1	Pair	Rubber Hipsters		
15	4	Sets	Air Tanks	With Harness	
16	12	Pair	Respirators	Item # C-9D301	
17	1	Sets	Breathing App.	Half Mask	
18	12	Sets	Respirator Facepiece	Item # 7200S	
19	1	Sets	Respirator Air Filters	Item # 7000	

Hazardous Materials Response Truck Equipment Inventory (Building 4219)
(As provided by DPW Environmental Division, March 2009)

Inv. Number	Quantity	Unit	Item	Description	Uses
1	2	Bags	Oil Gator	Dry Sweep For POL Spills	POL On Hard Surfaces
2	2	Kits	Mercury Kits		
3	1	Bucket	3 Gals. Acid Cleaner	For Use On Battery Spills	
4	2	Tubs	Rubber Tubs		To Contain POL
5	2	Buckets	Containers	Plastic Buckets 5 Gal	To Store Dry Sweep
6	2	Sets	Scoops	Red Plastic Scoops	For Clean Up
7	3	Sets	Brooms	White/PVC/Nylon Head	For Clean Up
8	3	Sets	Shovels	Plastic	For Clean Up
9	1	Sets	Squeegee	Hand Held 12"	
10	1	Sets	Pop Up Pool		Used In Control Of Spills
11	50	Pads	Fuel Pads	Gray Fuel Pads	Used In Clean Up
12	30	Pads	Oil Pads	Pink Oil Pads	Used In Clean Up
13	2	Sets	Pillows	Square Absorbent Pillows	For Clean Up
14	5	Sets	Absorbent Pigs	Item # 2048 3"X 48"	For Clean Up

Hazardous Materials Response Truck PPE Inventory (Building 4219)
(As provided by DPW Environmental Division, March 2009)

Item Number	Quantity	Unit	Item	Description	Uses
1	1	Packages	Gloves	Medium Vinyl Gloves	
2	20	Pair	Gloves	Blue Exam Gloves	
3	2	Pair	Gloves	Rubber	
4	1	Pair	Gloves	Ansell Edmont Gloves	
5	2	Sets	Ear Protection		
6	2	Pair	Safety Glasses	Plastic	
7	3	Pair	Wilson Respirators	Item # C-9D 301	
8	2	Pair	Respirators	# 7300S Half Mask	
9	5	Pair	Tyveks	White #1841 XL	
10	3	Pair	Tyveks	Blue Tyvek #23281 XL	

11	2	Pair	Tyveks	Blue Tyvek #23281 L	
12	2	Pair	Boots	Rubber Boots Size 9	
13	2	Rolls	Tape	Yellow Caution	
14	2		Vests	Emergency Vests	
15	1	Kit	Flares		
16	2	Stands	Caution Stands		
17	2		Hard Hats	White Plastic	

Hazardous Materials Response Truck Miscellaneous Inventory (Building 4219) (As provided by DPW Environmental Division, March 2009)

Item Number	Quantity	Unit	Item	Description	Uses
1	1		Camera	Nikon Digital	
2	1		Binoculars		
3	2		Wrenches		
4	1	Sets	Wrenches	Allen Wrenches	
5	2		Screw Drivers		
6	1		Pipe Wrench		
7	1		Crescent Wrench		
8	1		Nylon Tie		To Secure Equipment
9	1		Fire EX.		
10	2	Kits	First Aid Kits		
11	1		Chain	30 Feet Long	
12	1		GPS Unit		
13	1	Sets	Sockets		

Hazardous Materials Response Vehicle (DOL Maintenance) (On-site, building 80030, October 2004)

QTY	ITEM	QTY	ITEM
3	Sock booms (8’ x 10’)	1.5 bags	Poly Pads (MAT 404)
2	Shovels	5	Brooms (3 push, 2 stick)
200 lbs.	Absorbent	2 bags	Oil Sponges (30 lbs. each)
4 sets	Heavy gloves	1	MSDS Book
20	3’ x 48” poly socks	2	2-way radio DOL Maintenance Operations Frequency
2	Goggles	2 pair	Leather gloves
2	Face Shields	2	160-gallon Containment Pools
1	250-gallon Containment Pool		

IRP FORM 3-3. RESPONSE EQUIPMENT TESTING AND DEPLOYMENT DRILL LOG

Last Inspection or Response Equipment Test Date: Response equipment last used in May 2008.

Inspection Frequency: Once per month.

Last Deployment Drill Date: Deployment of Response Equipment occurs according to the procedures and frequency described in Section 8.2.3. Last deployment: July 2008.

Deployment Frequency: Response equipment is deployed at least every six months.

Oil Spill Removal Organization Certification (if applicable): As shown in Section 13.

IRP TABLE 3-2. DPW EMERGENCY RESPONSE PERSONNEL

DPW Emergency Response Personnel				
Name	Phone	Response Time	Role	Training
Charlotte Baldwin	(254) 432-1012	60 minutes	DPW Environmental IOSC	OSHA 1910.120 HAZWOPER IC Training
Dan Gomez	(254) 432-1018	20 minutes	DPW Environmental Spill Responder	OSHA 1910.120 HAZWOPER
Pat Hunt	(254) 432-1014	20 minutes	DPW Environmental Spill Responder	OSHA 1910.120 HAZWOPER

IRP TABLE 3-3. EMERGENCY RESPONSE CONTRACTORS

Emergency Response Contractors			
Contractor	**Phone**	**Response Time**	**Response Capabilities**
USA Environment, LP	281-996-4373	4.0 hours from New Braunfels 6.5 hours from Houston	**Secondary Worst-Case Discharge Responder** • Section 13 contains a copy of the contract between USA Environment and the DESC facility on Fort Hood. A listing of their spill equipment inventory is also included.
Dept. of the Navy, Supervisor of Salvage **(SUPSALV)**	202-781-1731 Hours 0600 - 1630 202-781-3889 Hours after 1630	15 hours	**Secondary Worst-Case Spill Response Contractor** • Tier 2 and 3 response capabilities. • Section 13 contains the list of spill equipment available from SUPSALV through a Military Interdepartmental Purchase Request **(MIPR)**.
USCG BOA	See Section 13	See Section 13	See Section 13

3.5 EVACUATION PLANS

3.5.1 Location of Stored Materials

See IRP Tables C-1 through C-8 in Appendix C of this IRP for the descriptions of POL containers on Fort Hood. The areas on the installation with these containers are shown on IRP Figures 1-1A – 1-1F, Map Sections A to E, in Section 1.9. Site figures in Appendix D also show the locations of oil and HM storage and transfer sites addressed in the SPCCP. IRP Tables C-1 to C-8 identify the locations of the POL containers within each installation area.

3.5.2 Hazards Imposed by Spilled Material

Hazards posed by JP-8 aviation fuel include:

- Explosion and/or fire
- Inhalation, ingestion, or dermal contact by humans
- Fish and wildlife injury / damage from discharges of aviation fuel to water courses

Explosion or fire hazard may result from a catastrophic failure of one or more bulk storage tanks in the presence of an ignition source. Flight operations include regular air traffic directly over the bulk storage tanks and explosion/fire would result from an aircraft crashing into or near the bulk tanks. Accidental release of JP-8 during loading / unloading / fueling operations could discharge quantities of fuel to the ground surface which could potentially ignite. Rupture of the transfer piping from construction operations could release quantities of JP-8 to the ground surface, which could potentially ignite from uncontrolled ignition sources.

Spills or leaks from the bulk storage tanks would be contained within the concrete secondary containment and are not likely to impact nearby aquatic environments. Spills or leaks occurring along the transfer pipeline or at the fuel stands could reach surface draining facilities, be transported down-gradient, and impact aquatic environments.

The above-described scenarios would expose workers and airmen to inhalation, ingestion, or dermal contact with the spilled material.

The specific hazards of the major products stored at Fort Hood are listed in IRP Table 3-4 below.

IRP TABLE 3-4. PHYSICAL AND TOXICOLOGICAL HAZARDS OF STORED POL PRODUCTS

Physical and Toxicological Hazards of Stored POL Products							
Material Name	**Oil Group**	**Vapor Density[1]**	**Flammable Range[2]**		**Flash Point[3]**	**Specific Gravity[4]**	**Toxicity Level[5]**
			LEL	**UEL**			
Unleaded Gasoline/ MUR or MOGAS[6]	1	3.0-4.0↓	1.4%	7.4%	<-30°F	0.75 Floats	300 ppm TLV 500 ppm STEL
Diesel Fuel	1	8.0↓	0.4%	7.5%	130°F	0.87 Floats	10 ppm TLV 15 ppm STEL
JP-8	1	4.7↓	0.7%	4.7%	100°F	0.84 Floats	NE

Note 1: Vapors/gases with densities less than 1 will rise (↑) in air and be trapped at the top of enclosures. Vapors/gases with densities greater than 1 will sink in air (↓), travel along the ground, and settle in low areas.

Note 2: LEL = lower explosive limit, the same as lower flammable limit
UEL = upper explosive limit, the same as upper flammable limit

Note 3: Flash point is the temperature at which enough vapors are present to ignite and flash across the liquid's surface when an ignition source is provided. Lower Flash Point temperatures mean greater amounts of vapors will be present, resulting in increased risk of fire or explosion.

Note 4: Specific gravity is a relative measure of the density of the material to the density of water. Any number less than 1 means the product will float on water. Any number greater than 1 indicates the material will sink beneath the surface of water. A number equal to 1 indicated the material may float or sink. Actual locations of such materials are dependent on other factors such as water temperature, air temperature, sunlight, darkness of material, etc.

Note 5: These are published exposure limits found on Material Safety Data Sheets **(MSDS)**.
PEL = OSHA's permissible exposure limit.
TLV = ACGIH's threshold limit value-time weighted average.
STEL = Time weighted (8-hour) average-short term (15-min.) exposure limit.
IDLH = NIOSH's immediately dangerous to life or health.

Note 6: Unleaded and premium unleaded gasoline contains toluene, xylene, ethylene benzene, and benzene.

NE means "not established".

3.5.3 Spill Pathways

The major oil storage facilities at Fort Hood are generally widely separated. Fort Hood may be divided into four general geographic areas. These are the Main Cantonment area, West Fort Hood, BLORA, and North Fort Hood. Most of the facilities drain to existing storm drainage ditches and/or intermittent waterways, which ultimately drain to Belton Lake. One major facility ultimately drains to Stillhouse Hollow Lake. Another main facility drains to Little River. Probable oil spill pathways for the major facilities in each of these geographical areas are described below.

3.5.3.1 Main Cantonment Area

Within the Main Cantonment Area, the major facilities include the Bulk Fuel Storage Facility **(BFSF)** and the bulk fuel storage facility at the Hood Army Airfield **(HAAF)** Rapid Refuel Facility **(RRF).**

Bulk Fuel Storage Facility. A discharge from the BFSF would flow in a northeasterly direction following surface drainage features and seasonally-dry creek beds. The discharge would flow east until it reaches Clear Creek, which is about 1.7 miles away. Flow would continue northward on Clear Creek for approximately 4.7 miles until it reaches House Creek. The discharge would then flow in a northeasterly direction until it reaches Cowhouse Creek, a distance of approximately 4.6 miles. The discharge would then flow about 13.2 miles in an easterly direction until it reaches the western arm of Belton Lake. The total distance traveled before the discharge would reach Belton Lake is approximately 24.2 miles.

Hood Army Airfield Rapid Refuel Facility. A discharge from the bulk fuel storage facility at the HAAF RRF would flow 0.2 miles in a southerly direction following surface drainage features until it reaches a storm water culvert in a seasonally dry retention area. The discharge would then follow the concrete pipes under Warrior Way, through a concrete lined drainage feature for approximately 0.6 miles. Flow would continue in a southerly direction for approximately 0.8 miles following the surface drainage until it reaches South Nolan Creek. The discharge would then flow in an easterly direction for 15.6 miles until it reached Nolan Creek. The discharge would continue to flow in an easterly direction for 9.5 miles until it reaches the Leon River. The discharge would then flow in a southerly direction for 8.1 miles until it reaches the Lampasas River. At this confluence, the waterway now becomes the Little River, a part of the Brazos River Basin. The total distance traveled before the discharge would reach Little River is approximately 34.8 miles.

3.5.3.2 West Fort Hood

Within West Fort Hood, the major facilities include the bulk fuel storage facility at the Robert Gray Army Airfield **(RGAAF)** RRF and the RGAAF Alert Tank Farm at the RGAAF Alert Facility **(AF)**.

Robert Gray Army Airfield Rapid Refuel Facility. A discharge from the RGAAF RRF bulk fuel storage facility would flow about 100 feet in an easterly direction over surface features until it reaches a seasonally-dry unnamed creek. The discharge would then flow about 1.1 miles northward in this unnamed creek until it reaches Clear Creek. The discharge would then flow in a northerly direction for approximately 7.7 miles until it reaches House Creek. The discharge would then flow about another 4.6 miles in a northeasterly direction until it reaches Cowhouse Creek. The discharge would then flow in an easterly direction for approximately 13.2 miles until it reaches the western arm of Belton Lake. The total distance traveled before the discharge would reach Belton Lake is approximately 26.6 miles.

Robert Gray Army Airfield Alert Facility. A discharge from the RGAAF Alert Tank Farm would flow in a southerly direction over surface features for approximately 275 feet until it reaches a seasonally-dry unnamed creek. The discharge would then flow in a southeasterly direction for approximately 2.0 miles until it reached a culvert going under Oakalla Road. Somewhere north of this culvert, this unnamed stream becomes Reese Creek. The discharge will continue to flow in a southerly direction for 7.2 miles until it reaches the Lampasas River. The

discharge will then flow approximately 18.7 miles in a generally easterly direction until it reaches the western arm of Stillhouse Hollow Lake. The total distance traveled before the discharge would reach Stillhouse Hollow Lake is approximately 27.9 miles.

3.5.3.3 BLORA Maintenance and Recreation

A spill from the ASTs at the maintenance area will migrate to Belton Lake via the roadway and a small stream. The spill must travel approximately 420 feet to reach Belton Lake. A spill from the 4,000 gallon AST, supplying fuel to the recreational boat dock, will migrate to Belton Lake via existing drainage. The spill must travel approximately 400 feet to reach Belton Lake.

3.5.3.4 North Fort Hood

Fort Hood does not have any major facilities in North Fort Hood. The Texas Army National Guard Mobilization and Training Equipment Site is located on North Fort Hood. A spill from an AST located at this facility will migrate towards the Leon River via existing storm water drainage pathways and Turnover Creek (approximately 2200 feet to Turnover Creek). The Leon River is approximately 1,500 feet from Turnover Creek. The Leon River empties into Belton Lake approximately 25 miles downstream. The Texas Army National Guard is responsible for developing and maintaining a Spill Prevention, Control, and Countermeasure Plan and IRP conforming to 40 CFR 112 and FH Regulation 200-1 for the Mobilization and Training Equipment Site.

3.5.4 Prevailing Wind Direction and Speed

The estimated prevailing wind speeds and direction at Fort Hood are shown in IRP Table 3-5. Information on wind direction and speed is readily available to emergency responders from the Fort Hood air traffic controllers.

IRP TABLE 3-5. PREVAILING WIND SPEED AND DIRECTION

Average Wind Speed												
	JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Direction	S	S	S	S	S	S	S	S	S	S	S	S
Speed	11	11	12	11.5	10.5	10	9.5	9	9	9	10	10
Peak Gusts	49.5	47	50	47	60	54	45	46	68	49	52	70

Direction = prevailing wind direction in compass points. Peak Gusts = peak wind gusts in miles per hour.
Speed = mean wind speed in miles per hour.

Source: NOAA National Climatic Data Center, *"Climatic Wind Data For The United States,"* NOV 1998
Note: The above data is an average of the data for Austin and Waco as shown in the above reference.

3.5.5 Water Currents, Tides, or Wave Conditions

The base drains through drainage ditches and storm water drains that ultimately convey drainage flows off the base. The creeks, unnamed tributaries, and rivers are not impacted by tidal conditions or wave action.

3.5.6 Arrival Route of Emergency Response Personnel and Response Equipment

In an emergency, Fire Department personnel and equipment would be dispatched from the closest Fire Station on base to the location of the incident. Medical response personnel would be dispatched from the closest of the eight medical clinics or the Carl R. Darnell Army Medical Center Hospital. Arrival routes for off-base response organizations are shown on IRP Figure 1-3, *Installation Site Evacuation Plan*. The evacuation route or routes chosen by the IC will allow for transit of these emergency resources as necessary. Fort Hood Military Police response would be dispatched by the Law Enforcement Desk Sergeant from their patrol zones throughout the base.

3.5.7 Evacuation Routes, Alternate Routes, Location of Alarm/Notifications Systems, and Locations of Shelters

Determination: Initial isolation and evacuation is determined in accordance with the Emergency Response Guidebook and prevailing conditions such as direction and rate of spillage, weather, wind, and hazard.

In the event of an oil or HAZMAT spill, the FHFES IC and DPW IOSC will consider the need to evacuate personnel from affected areas.

- If evacuation is necessary, the IOSC coordinates with the fire department, Provost Marshal (Military Police), and Medical Department Activity to determine the needs and scope of evacuation.
- Coordination with the Emergency Operations Center **(EOC)**, other agencies of Fort Hood, and local governments may be required according to circumstances.

Routes:

– When evacuating to the east, the most advantageous routes are:

- Turkey Run Road
- South Range Road
- North Avenue
- Murphy Road
- Central Avenue
- Tank Destroyer Boulevard
- Highway 190
- Pump Station Road
- Mohawk Road

– When evacuating to the north, the most advantageous routes are:

- Gray Drive
- Clarke Road
- Clear Creek Road
- 72nd Street and West Range Road
- Hood Road
- 37th Street
- 19th Street
- Martin Drive and East Range Road

– When evacuating to the south, the most advantageous routes are:

- Clarke Road
- Gray Drive
- Clear Creek Road
- 72nd Street
- Hood Road
- 37th Street
- 19th Street
- Martin Drive

– When evacuating to the west, the most advantageous routes are:

- Turkey Run Road
- South Range Road
- Murphy Road
- North Avenue
- Park Avenue
- Battalion Avenue
- Tank Destroyer Boulevard
- Highway 190
- Pump Station Road
- Mohawk Road

Staging: The Provost Marshal designates staging areas used to hold evacuees until the hazard is eliminated or until temporary shelters become necessary and available.

Staging Areas can be established in the vicinity of:
- PK165467 (west end of North Avenue),
- PK232483 (East Range Road),
- PK165441 (Railhead Drive), and
- PK233716 (North Fort Hood).

Shelters: The Provost Marshal designates temporary shelters used to accommodate evacuees when the hazard is expected to persist for more than six hours.

Temporary shelters can be established at:

- Bldg 23001 (Abrams Field House),
- Bldg 9301 (Burba Physical Fitness Center),
- Bldg 31006 (Harvey Physical Fitness Center),
- Bldg 12018 (Raider Physical Fitness Center),
- Bldg 39008 (Kieschnick Physical Fitness Center),
- Bldg 24006 (Red Team Physical Fitness Center),
- Bldg 87101 (Starker Physical Fitness Center),
- Bldg 91073 (West Fort Hood [WFH] Physical Fitness Center), and
- North Fort Hood barracks.

Communication: Evacuation instructions may be transmitted to personnel in affected areas using one or more of the following methods:

- Telephone,
- Military police,
- Fire department, or
- Radio and television
  - Tactical (FM) net,
  - Emergency band (fire department, police, DPW, Range Division, etc.),
  - Citizens' band channel 9 (Range Division, 287-3130), or
  - Local television and radio broadcasters.

Execution: The Provost Marshal directs evacuation in coordination with the EOC, OSC, fire department, and emergency departments of adjacent cities.

Evacuation may begin before coordination as needed.

Military police and local police departments prevent unauthorized personnel from entering unsafe areas within their respective jurisdictions.

The Provost marshal and local police departments establish routes and staging areas considering:

- advice from the OSC,
- wind direction and velocity,
- approximate number of evacuees,
- potential for spread of hazards.
- capabilities of existing roads,
- available transportation,
- resources available from adjacent cities,

3.5.8 Transportation of Injured Personnel to Nearest Emergency Medical Facility

After initial decontamination in the field, injured personnel would be transported to the closest on-base medical facility (one of eight clinics or the Carl R. Darnell Army Medical Center Hospital). If additional medical resources are needed, or if Fort Hood medical resources are within the evacuation zone, injured personnel would be transported to the Metroplex Hospital, which is less than one mile from Fort Hood at 2201 South Clear Creek Road.

3.5.9 The Need for a Centralized Check-In Area for Evacuation Validation (Roll Call)

The need for a centralized check-in area for evacuation validation (roll call) will be determined and activated by the IC. Unless otherwise directed by the IC, the shelters and staging areas identified in section 1.7.7 are designated check-in areas. This will ensure that all persons working at nearby facilities are accounted for during emergencies. This process will work well for the many industrial portions of the post where a well-established work force is routinely present. All personnel on duty will be accounted for by their supervisor, officer, or non-commissioned officer in-charge. The nature of the military organizational structure allows for efficient accounting of all personnel and quick identification of missing personnel.

Managers of the base buildings have developed a personnel list to be used for evacuation validation (roll call) in the event of a catastrophic event. Primary and secondary evacuation routes and re-assembly areas have been established as appropriate for that particular building. Signs are posted within the building to remind occupants of evacuation procedures and re-assembly areas. The senior employee at each building is responsible for:

- Development of evacuation and re-assembly plan criteria,
- Implementing all aspects of local evacuation plans and procedures,
- Dissemination of pertinent evacuation/re-assembly information to building occupants (meetings, posting of signs, etc.),
- Conducting evacuation and re-assembly drills,
- Accounting for all persons at that building during drills and actual emergencies,
- Conveying roll call information to emergency response personnel arriving at the scene.

3.5.10 Selection of a Mitigation Command Center

The pre-selected site for the Emergency Operations Center **(EOC)** is the III Corps Operations Center located in Building 1001. The Garrison Commander or designated representative will exercise command authority of all assigned and attached military and civilian personnel and resources, whether they are located on or off the installation during the disaster response and recovery, from the EOC.

The IC will be responsible for establishing an incident-specific command mitigation center in the event of an emergency. Depending on the exact location of the incident, the IC may select a building that is located a safe distance from the incident site where information may be quickly disseminated to response and rescue workers. When possible, this incident specific command mitigation center should be within line-of-site of the incident to allow direct observation of response/rescue activities. Communication lines to the EOC and to appropriate civil authorities should be established immediately.

3.5.11 Community Evacuation Plans

Evacuation of the local community would be conducted by the Killeen Fire Department, Killeen Police Department, the Bell County Sheriff, Bell County LEPC, Coryell County Sheriff, and/or Coryell County LEPC. Copies of the community evacuation plans from Bell County, Coryell County, and the city of Killeen are located within the Fort Hood Corps Operations Center and the Killeen Emergency Operations Center. Some assistance from Fort Hood Military Police and Fire Department personnel would likely be provided for evacuation of communities closest to the base or in immediate danger.

3.6 QUALIFIED INDIVIDUAL'S DUTIES

The QI for Fort Hood is shown in IRP Table 3-6. Additional information on the QI and alternate QIs can be found in IRP Form 2-1.

IRP TABLE 3-6. QUALIFIED INDIVIDUAL INFORMATION

Qualified Individual Information	
Position:	Fort Hood Fire and Emergency Services Fire Chief
Work Phone Number:	(254) 287-3908
24-hour Number:	(254) 287-3908

The following information is a summary of the responsibilities for QIs in the event of emergencies.

- Conduct Initial Notification: Depending on the size and location of the spill or release, immediately notify the appropriate agencies listed in Section 1.2 of the ERAP.
- Ascertain if the spill is capable of being stopped or contained by on-base resources. If outside assistance is necessary to stop or contain the spill, immediately contact one of the OSROs through the Contracting Officer.
- Ensure, within limits of authority, that personnel responding to the incident have necessary and adequate personnel, supplies, and equipment to quickly, safely, and effectively respond to the situation at hand.
- If additional resources are desirable or necessary, appeal to the next level of authority for assistance.

The regulatory duties [40 CFR 120(h)(3)(ix)] of the qualified individual are listed below.

- Activate alarms from the loading rack, manifold, firehouse, warehouse, or office to notify all base personnel;
- Notify all response personnel per the Emergency Response Notification Phone List (Section 1.2 of the ERAP);
- Identify character, exact source, amount, and extent of release, as well as other items needed for notification;
- Notify and provide necessary information to the appropriate federal, state, and local authorities with designated response roles, including the NRC, SERC, and LEPC;
- Using knowledge of the hazards of the materials on-site, assess interaction of spilled substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;
- Assess possible hazards to human health and environment due to the release. The assessment will consider both direct and indirect effects of the release (gases released, effects of any hazardous surface water runoffs from water or chemical agents used to control fire and explosion). Considerations will also be given to environmental hazards posed by releases from the foam suppression systems at the facility;
- Assess and implement prompt removal actions to contain and remove substance released;
- Coordinate rescue and response actions as previously arranged through Mutual Aid Agreements with surrounding community agencies and during discussions and drills with all response personnel, including the local Fire Departments and contractors;
- Use authority to immediately access funding to initiate cleanup activities. The QI has been granted full authority to implement corrective actions; and,
- Direct cleanup activities until properly relieved of this responsibility.

QI Authority and Responsibility

The QI has initial command and control responsibilities for any oil or hazardous material/substance spill addressed by this plan. As a minimum, the QI and designated alternates must have:

- Authority to activate and contract with oil spill removal organizations.
- Authority to act as liaison with the Federal OSC.
- Authority to obligate appropriate funding to support all necessary or directed oil response activities.

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4. HAZARD EVALUATION

Hazard identification and evaluation assists in planning for potential discharges. This section examines the oil storage facilities at Fort Hood to determine where discharges are likely to occur and the potential impact.

4.1 HAZARD IDENTIFICATION

IRP Forms C-1 through C-9 in Appendix C list the bulk oil storage and transfer and major oil storage tanks at Fort Hood and their associated secondary containment structure and equipment. Aside from the bulk oil storage and transfer tanks, major oil storage tanks also constitute the majority of the oil storage capacity at Fort Hood. A spill at one of these tanks is more likely to result in an environmental hazard. Appendix C of this IRP provides an inventory of oil and HM storage containers on Fort Hood. Most of the minor facilities are Motor Pools that are used for maintenance and storage of Army vehicles and equipment. The Motor Pools share a common drainage system on the main cantonment area. As shown on IRP Figure 1-2B, most Motor Pools drain via storm drainage ditches to one of four settling ponds whose discharges are TPDES permitted. Motor Pools located within the light blue areas identified on IRP Figure 1-2B drain to the Fort Hood Municipal Separate Storm Sewer System

The DFSP at Fort Hood is a government-owned contractor-operated facility that stores and supplies bulk fuel to military units at Fort Hood. The DFSP contractor operates under a DESC contract. Under the contract, the DFSP contractor is responsible for the operations, routine inspections, and maintenance of the DFSP. DFSP is comprised of four separate fuel storage and transfer operations within the confines of the military installation: the RGAAF AF, which includes the Alert Tank Farm and the South Ramp Hydrant at the RGAAF, the RGAAF RRF, the HAAF RRF, and the BFSF.

The BFSF is the main bulk fuel storage and distribution facility for JP-8, MOGAS, diesel, biodiesel, and E-85 at Fort Hood. Commercial tank trucks deliver fuels to this facility at the facility's unload stands. See Site Survey 73 in Appendix D for more details. The BFSF distributes fuel in bulk to other installation fuel use sites and users by tank trucks or military refuelers using load racks and load stands. The BFSF also dispenses fuel to military vehicles at a retail dispensing facility.

The RGAAF AF consists of a bulk JP-8 storage facility, the Alert Tank Farm, which supplies JP-8 to a hydrant at the South Ramp at the RGAAF. See Site Survey 74 in Appendix D for more details. The hydrant refuels fixed wing aircrafts and loads Army refuelers. This site also includes a parking apron for parking refuelers and hydrant hose trucks. Commercial and DFSP tank trucks deliver JP-8 to the Alert Tank Farm at the facility's unload stand.

The RGAAF RRF consists of a bulk JP-8 tank farm that supplies JP-8 to a hydrant that refuels rotary wing aircrafts and loads military refuelers at the North Ramp of the RGAAF. See Site Survey 75 in Appendix D for more details. Commercial and DFSP tank trucks deliver JP-8 to the tank farm at the facility's unload stand.

The HAAF RRF consists of a bulk JP-8 tank farm that supplies JP-8 to a hydrant at the HAAF. See Site Survey 76 in Appendix D for more details. The hydrant refuels rotary wing aircrafts

and loads Army refuelers. Commercial and DFSP tank trucks deliver JP-8 to the tank farm at the facility's unload stand.

As identified in Appendices C and D, the bulk storage ASTs at the DSFP facilities are field-constructed atmospheric steel tanks built to either API 12-C or API 650 standards. The remaining ASTs storing oil at Fort Hood are primarily shop-fabricated UL 142 double-walled steel tanks or primary steel wall, HDPE lined, encased in concrete tanks. These shop-fabricated ASTs range in size from 125 gallons to 20,000 gallons, the most common size being 500 gallons.

Food preparation facilities at Fort Hood use grease containers to collect and store waste cooking oil and grease. The two types of grease containers are 280-gallon container units and 55-gallon drums. Most of the grease containers do not have secondary containment. Most facilities that store cooking grease in 55-gallon drums store the drums in 250-gallon secondary containment sumps provided by the cooking grease vendor.

Fort Hood store 55-gallon steel drums of POL and hazardous materials in adequate secondary containment by using secondary containment units **(SCUs)**, spill pallets, hazardous material sheds, and UPRPs with integrated secondary containment.

In addition to the DFSP pipeline bulk fuel transfer operations, there are end-use oil transfer operations at Fort Hood. These transfer operations consist primarily of tank truck oil transfer and/or retail refueling at the Recycle Storage Facility; BLORA, where there is a recreational boat refueling facility; certain motor pools; Recycle Storage Facility; Rail Operations Center, where there is a diesel train engine refuel facility; and retail service stations. Storage tanks that contain reclaimed fuel, waste or used oil, cooking grease, or HM have only fill-ports and no connected pipelines.

Appendix C also identifies the less-than 90-day hazardous waste sites on Fort Hood and provides information on pesticide storage. These locations are also shown on IRP Figures 1-1A – 1-1F. Hazardous material storage locations can be found in the Fort Hood Hazardous Substance Management System. Fort Hood inventories of hazardous materials are updated quarterly within this system.

Operations at each of the DFSP facilities and major facilities that risk the discharge of oil are summarized below. These operations generally include the loading/unloading of fuel, daily maintenance, and routine operations. The site surveys in Appendix D contain more details on specific likely discharge risks.

- Bulk Fuel Storage Facility: Rupture of tanks or pipes may cause reportable spills. Failure of pumps, pipes, transfer lines, or other transfer equipment also may cause a reportable spill. Loading/ unloading operations may result in a spill of a maximum of 8,000 gallons.
- Refueling at HAAF and RGAAF RRFs: Failure of re-supply tankers and loading/ unloading operations may result in a spill of a maximum of 8,000 gallons. Rupture of tanks or pipes may cause reportable spills. Failure of pumps, pipes, transfer lines, or other transfer equipment also may cause a reportable spill.
- RGAAF AF Alert Tank Farm: Rupture of tanks or pipes may cause reportable spills. Failure of pumps, pipes, transfer lines, or other transfer equipment also may cause a reportable spill. Loading/ unloading operations may result in a spill of a maximum of 8,000 gallons.

- Recycle Storage Facility: Failure of tankers and loading/ unloading operations may result in a spill of a maximum of 5,000 gallons. Rupture of tanks or pipes may cause reportable spills. Failure of pumps, pipes, transfer lines, or other transfer equipment also may cause a reportable spill.
- Active Sanitary Landfill: Rupture of tanks or pipes may cause reportable spills. Loading/unloading operations may result in a spill of a maximum of 3,000 gallons.
- Post Exchange Service Centers (AAFES): Rupture of tanks or pipes may cause reportable spills. Failure of pumps, pipes, transfer lines, or other transfer equipment also may cause a reportable spill. Loading/ unloading operations may result in a spill of a maximum of 5,000 gallons.
- DPW Motor Pool: Rupture of tanks or pipes may cause reportable spills. Failure of pumps, pipes, transfer lines, or other transfer equipment also may cause a reportable spill. Loading/ unloading operations may result in a spill of a maximum of 5,000 gallons.
- BLORA: Loading and unloading operations may result in a spill of a maximum of 3,000 gallons.
- Building 88030, Consolidated Shop: Rupture of tanks or pipes may cause reportable spills. Loading/ unloading operations may result in a spill of a maximum of 5,000 gallons.
- Building 88036, Component Overhaul: Rupture of tanks or pipes may cause reportable spills. Loading/ unloading operations may result in a spill of a maximum of 5,000 gallons.
- Used oil bunker near Building 88036: Loading/ unloading operations may result in a reportable spill of a maximum of 5,000 gallons.
- Motor Pools: Lack of maintenance, damage, or misuse of oil-water separators can result in reportable spillage of oil. Lack of maintenance, damage, misuse, or explosion of refuelers could result in a spill.
- Mobile and Portable Fueling Equipment: Ruptured tanks or failure of transfer connections could spill up to 5,000 gallons. Transit accidents, lack of maintenance, damage, misuse, or explosion of a refueler could result in a spill of up to 3,000 gallons.

Normal daily throughput included approximately 1,490 gallons of diesel, 46,800 gallons of JP-8, and 56,230 gallons of gasoline.

4.2 VULNERABILITY ANALYSIS

This section addresses the potential effects of a spill from the various oil storage facilities at Fort Hood. The probable spill pathways and the vulnerability of sensitive environments and public facilities are described. These pathways are shown in IRP Figure 1-2A.

4.2.1 Spill Pathways

The major oil storage facilities at Fort Hood are generally widely separated. Fort Hood may be divided into four general geographic areas. These are the Main Cantonment area, West Fort Hood, BLORA, and North Fort Hood. Most of the facilities drain to existing storm drainage ditches and/or intermittent waterways, which ultimately drain to Belton Lake. One major facility

ultimately drains to Stillhouse Hollow Lake. Another main facility drains to Little River. Probable oil spill pathways for the major facilities in each of these geographical areas are described below.

4.2.1.1 Main Cantonment Area

Within the Main Cantonment Area, the bulk oil storage and transfer facilities include the BFSF and HAAF RRF.

Bulk Fuel Storage Facility. A discharge from the BFSF would flow in a northeasterly direction following surface drainage features and seasonally-dry creek beds. The discharge would flow east until it reaches Clear Creek, which is about 1.7 miles away. Flow would continue northward on Clear Creek for approximately 4.7 miles until it reaches House Creek. The discharge would then flow in a northeasterly direction until it reaches Cowhouse Creek, a distance of approximately 4.6 miles. The discharge would then flow about 13.2 miles in an easterly direction until it reaches the western arm of Belton Lake. The total distance traveled before the discharge would reach Belton Lake is approximately 24.2 miles.

Hood Army Airfield Rapid Refuel Facility. A discharge from the bulk fuel storage facility at the HAAF RRF would flow 0.2 miles in a southerly direction following surface drainage features until it reaches a storm water culvert in a seasonally dry retention area. The discharge would then follow the concrete pipes under Warrior Way, through a concrete lined drainage feature for approximately 0.6 miles. Flow would continue in a southerly direction for approximately 0.8 miles following the surface drainage until it reaches South Nolan Creek. The discharge would then flow in an easterly direction for 15.6 miles until it reached Nolan Creek. The discharge would continue to flow in an easterly direction for 9.5 miles until it reaches the Leon River. The discharge would then flow in a southerly direction for 8.1 miles until it reaches the Lampasas River. At this confluence, the waterway now becomes the Little River, a part of the Brazos River Basin. The total distance traveled before the discharge would reach Little River is approximately 34.8 miles.

4.2.1.2 West Fort Hood

Within West Fort Hood, the major facilities include the bulk fuel storage facility at the RGAAF RRF and the RGAAF Alert Tank Farm at the RGAAF AF.

Robert Gray Army Airfield Rapid Refuel Facility. A discharge from the RGAAF RRF bulk fuel storage facility would flow about 100 feet in an easterly direction over surface features until it reaches a seasonally-dry unnamed creek. The discharge would then flow about 1.1 miles northward in this unnamed creek until it reaches Clear Creek. The discharge would then flow in a northerly direction for approximately 7.7 miles until it reaches House Creek. The discharge would then flow about another 4.6 miles in a northeasterly direction until it reaches Cowhouse Creek. The discharge would then flow in an easterly direction for approximately 13.2 miles until it reaches the western arm of Belton Lake. The total distance traveled before the discharge would reach Belton Lake is approximately 26.6 miles.

Robert Gray Army Airfield Alert Facility. A discharge from the RGAAF Alert Tank Farm would flow in a southerly direction over surface features for approximately 275 feet until it reaches a seasonally-dry unnamed creek. The discharge would then flow in a southeasterly direction for approximately 2.0 miles until it reached a culvert going under Oakalla Road.

Somewhere north of this culvert, this unnamed stream becomes Reese Creek. The discharge will continue to flow in a southerly direction for 7.2 miles until it reaches the Lampasas River. The discharge will then flow approximately 18.7 miles in a generally easterly direction until it reaches the western arm of Stillhouse Hollow Lake. The total distance traveled before the discharge would reach Stillhouse Hollow Lake is approximately 27.9 miles.

4.2.1.3 BLORA Maintenance and Recreation

A spill from the ASTs at the maintenance area will migrate to Belton Lake via the roadway and a small stream. The spill must travel approximately 420 feet to reach Belton Lake. A spill from the 4,000-gallon AST, supplying fuel to the recreational boat dock, will migrate to Belton Lake via existing drainage. The spill must travel approximately 400 feet to reach Belton Lake.

4.2.1.4 North Fort Hood

Fort Hood does not have any major facilities in North Fort Hood. The Texas Army National Guard Mobilization and Training Equipment Site is located on North Fort Hood. A spill from an AST located at this facility will migrate towards the Leon River via existing storm water drainage pathways and Turnover Creek (approximately 2200 feet to Turnover Creek). The Leon River is approximately 1500 feet from Turnover Creek. The Leon River empties into Belton Lake approximately 25 miles downstream. The Texas Army National Guard is responsible for developing and maintaining a Spill Prevention, Control, and Countermeasure Plan and IRP conforming to 40 CFR 112 and FH Regulation 200-1 for the Mobilization and Training Equipment Site.

4.2.2 Vulnerability Analysis

Calculations were performed for the BFSF, HAAF RRF, RGAAF RRF, and RGAAF AF to determine the distance a spill from either of these facilities might travel. This in turn identifies the streams, rivers, lakes, etc. that are vulnerable to a spill. The spill pathways outlined above identified several waterways and lakes including Clear Creek, House Creek, Cowhouse Creek, Leon River, Belton Lake, Reese Creek, Lampasas River, Stillhouse Hollow Lake, and South Nolan Creek. These calculations can be found in Section 11.

The worst-case scenario calculations found in Section 11 show that a discharge from the BFSF will not reach Belton Lake before response resources can arrive. Additionally, a worst-case discharge from RGAF will not reach Stillhouse Hollow Lake prior to the arrival of response resources.

Belton Lake is a very large reservoir with several fingers. At the head of the reservoir where Cowhouse Creek enters is a drinking water intake for the Bell County Water Control and Improvement District 1. The raw water intake has three gates that are set at 25 feet, 50 feet, and 75 feet below the water's surface. A small portion of the western edge of the Belton Lake shoreline is a "protection area" for bald eagles (*Haliaeetus leucocephalus*).

A discharge from either the BFSF or RGAAF RRF would impact Clear Creek. Clear Creek passes through Comanche Village III, a military housing area, approximately 2.4 miles from the Bulk Fuel Storage Facility. Downstream of Comanche Village III, Clear Creek passes near a golf course. Additionally, product flow from a discharge from either of these sites would pass

within 0.5 miles from Montague Village Elementary School and 0.6 miles from Clarke Elementary School.

A discharge from the HAAF RRF would impact residential and business areas south of the facility, along the surface drainage features for approximately 1.3 miles. Vapors from the discharge could impact East Ward Elementary School, which would be approximately 0.2 miles east of the surface drainage features. Flow would continue down South Nolan Creek for approximately 8 miles. Approximately 4.5 miles down South Nolan Creek, the flow would pass within 0.5 miles of Eastern Hills Middle School. Within this route, the flow could cross under U.S. 190, a major east-west transportation route.

A spill at any of the facilities described above will most likely impact fish and wildlife in and around the affected streams, rivers, and lakes. Federally-listed threatened and endangered species that have been identified for Bell and Coryell counties and that could be at risk from a spill include the following bird species: golden-cheeked warbler (*Dendroica chrysoparia*), arctic peregrine falcon (*Falco peregrinus anatum*), whooping crane (*Grus americana*), piping plover (*Charadrius melodus*), and black-capped vireo (*Vireo atricapillus*). A spill at the facilities could limit the recreational activities (e.g., fishing and boating) at Belton Lake and Stillhouse Hollow Lake if released material reached these areas.

No other schools, medical facilities, businesses, other transportation routes, or utilities will be directly affected by a spill at any of Fort Hood's major facilities.

4.3 ANALYSIS OF THE POTENTIAL FOR AN OIL SPILL

The primary causes of reportable spills at Fort Hood have been human error and equipment failure. Although it is unlikely, the potential does exist for larger discharges to occur. A catastrophic event such as a tornado, violent storm, explosion, or catastrophic failure of a tank at a large facility might result in the discharge of large quantities of oil or fuel.

The following practices and factors reduce the risk of discharges occurring at Fort Hood's oil and fuel storage facilities:

- Routine operational inspections and periodic scheduled formal in-service and out-of service inspections and testing of the DFSP oil storage and transfer equipment.
- Daily inspections by facility personnel.
- Routine maintenance by DPW personnel.
- Standard operating procedures for transfer and re-circulating activities.
- Preventive measures such as valve lockouts at some facilities.
- Visible placement of warning signs (e.g. "FLAMMABLE," "NO SMOKING w/in 50 FT").
- Sufficient secondary containment for most facilities (reducing the impact of a discharge on the surrounding environment),
- Prompt removal of water from secondary containment structures,
- ASTs and USTs are generally less than fifteen years old,
- Replacement of existing shop-fabricated tanks at oil/fuel storage and collection facilities with double-walled shop-fabricated tanks built to industry standards.

4.4 FACILITY REPORTABLE OIL SPILL HISTORY

Appendix G in the Fort Hood IRP summarizes federal reportable spill events at Fort Hood since 2001. A comprehensive electronic spill database is maintained by the DPW Environmental Division.

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5. DISCHARGE SCENARIOS

5.1 INTRODUCTION

EPA-regulated facilities are required to develop oil spill scenarios based on the facility's multi-level discharge planning volumes. This section describes scenarios (e.g. small, medium, and worst-case) that may result in discharge of oil. The scenarios are based on typical operating situations and describe those thought likely or probable to occur on Fort Hood. Typical operations that take place on this facility include:

- Facility maintenance
- Vehicle maintenance
- Vehicle refueling
- Pumping station
- Loading and unloading of surface transportation
- Aircraft refueling
- Aircraft maintenance
- Aircraft operations
- Facility piping
- Oil storage tanks

Major risk scenarios could be based on the inherent risk to a military establishment: an attack on the base during wartime conditions, a terrorist attack on the base, or an aircraft crash in the bulk oil storage area. Two natural events could cause a major impact on the oil storage and distribution system: lightning strikes causing an explosion and fire or severe weather. Human error, welding discrepancies in the tanks, and piping failure are also events that could cause major discharges into the surrounding areas. Due to U. S. Army and Fort Hood operational inspection requirements for equipment and POL storage containers, there is no inherent risk of discharge due to age or a chain reaction at Fort Hood.

5.2 FORT HOOD DRAINAGE

All storm water runoff on the installation is collected through a series of inlets, pipes, and open ditches. Rainfall on the base flows through this system and eventually outflows into the Cowhouse Creek, South Nolan Creek, or Reese Creek. The piping which makes up this system may vary in size and type. The smallest pipe size in the system consists of three inch roof drains; the largest pipe in the system is 60-inch reinforced concrete piping, located under Warrior Way, south of HAAF.

The types of pipes utilized on the base include reinforced concrete, corrugated metal, polyvinyl chloride, and ductile iron. The drainage conditions on the base are acceptable, with minimal ponding or flooding.

All uncontaminated storm water collected in areas of fueling and oil storage (i.e., storage tank dikes, aviation fuel loading and unloading areas, and the entire MOGAS/diesel fueling area) are routed through OWSs. These safe guards have been installed to protect the environment and ensure compliance to the conditions of the National Pollution Discharge Elimination System **(NPDES)** permit issued to Fort Hood.

While there are many storm water outfalls, a majority of storm water runoff generally exits Fort Hood through surface drainage features that lead to Cowhouse Creek, Reese Creek, or South Nolan Creek. Storm water discharge from a representative sample of these outfalls is monitored under the NPDES. Additional information can be found in the Fort Hood Storm Water Pollution Prevention Plan, which is located in the Environmental Management Officer's office.

5.3 SMALL AND MEDIUM OIL DISCHARGES

5.3.1 Small and Medium Oil Discharge Planning Volumes

A small discharge for the base is defined as any discharge volume less than or equal to 2,100 gallons. A medium discharge is defined as any discharge up to 36,000 gallons or 10 percent of the worst case discharge, whichever is less (40 CFR Part 112, Appendix F). Since 36,000 gallons is less than 10 percent of the worst case discharge, the medium discharge for the base will be defined as any discharge between 2,100 and 36,000 gallons. IRP Table 5-1 identifies the planning volumes for Fort Hood upon which small and medium scenarios are based. Typical operations where small and medium discharges may occur at the base are depicted in IRP Table 5-2. IRP Table 5-3 identifies risks associated with various operations.

IRP TABLE 5-1. DISCHARGE PLANNING VOLUMES

Discharge Planning Volumes		
Oil Group	**Size Classification**	**Spill Volume (gal)**
1	Small Spill	2,100
1	Medium Spill	36,000

IRP TABLE 5-2. POTENTIAL DISCHARGE SIZE FOR TYPICAL OPERATIONS

Potential Discharge Size for Typical Operations			
Operation	**Small Discharge**	**Medium Discharge**	**Worst case Discharge**
Facility Maintenance	√		
Vehicle Refueling	√		
Vehicle Maintenance	√		
Pumping Station	√	√	
Loading and Unloading of Surface Transportation	√	√	
Aircraft Refueling	√	√	
Aircraft Maintenance	√		
Aircraft Operations	√		
Facility Piping	√	√	
Oil Storage Tank	√	√	√

IRP TABLE 5-3. OIL OR HAZARDOUS SUBSTANCES SPILL RISKS

Oil or Hazardous Substance Spill Risks		
Operation at Facility	**Description**	**Typical Transfer Volume (gal)**
Transfer Facility		
Tank Truck Loading and Unloading	• Leaks from piping, fittings, valves, hoses, transfer connections, and other equipment to include the tank truck. • Operator errors and equipment malfunctions that cause overfills during loading operations. • Structural and equipment component failures caused by collision with mobile equipment; catastrophic ruptures and failures of valves, hoses, piping, and tank truck seams and rivets, loading equipment, etc.	Variable from several gallons to volume of largest tank.
Day to Day Operations		
Pipe Repair	• Equipment failures due to faulty installation or repairs, e.g., installing bolts improperly, installing components with incorrect specifications, and installing improperly selected gaskets. • Failure to completely or adequately isolate and evacuate oil in section or component before repairs.	Variable from several gallons to volume of largest tank.
Valve Repair	• Leaks from valve stems due to improperly adjusted valve packings and failures of valve body parts due to improper joining to piping. • Improper adjustment of pressure relief valves. • Failure to completely or adequately isolate and evacuate oil before repairing valve.	Variable from several gallons to volume of largest tank.
Tank-To-Tank Transfers	• Overfills due to valve misalignments and/or tank gauging errors.	Variable from several gallons to volume of largest tank.
Tank Truck Deliveries	• Leaks from piping, fittings, valves, hoses, transfer connections, and other equipment, to include tank truck. • Operator errors and equipment malfunctions that cause overfills during loading operations.	Variable from several gallons to volume of tank truck.
Draining Tank Bottom Water	• Inadequate monitoring of bottom water during draining operation.	Variable from several gallons to volume of largest tank.
Draining Secondary Containment	• Inadequate inspection of impounded dike water before draining dike. • Allowing locks/drains to fall into disrepair or become clogged. • Not fully closing or locking dike drainage valve after opening.	Variable from several gallons to volume of secondary containment.

5.3.2 Small and Medium Discharge Scenarios

The following tables contain small and medium discharge scenarios that could occur on Fort Hood.

IRP TABLE 5-4. SMALL DISCHARGE FOR FACILITY MAINTENANCE

Small Discharge Scenario for Facility Maintenance	
Size Of Discharge	25 gallons
Potential Spill Causes	Accidental spill of degreasing fluid
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 400 feet to Belton Lake
Spill Pathways and Likelihood of Spill Traveling Offsite	Surface drainage features to the lake This spill is likely to travel beyond Fort Hood property
Location of Material Spilled	Building 20119
Material Discharged	Degreasing fluid
Weather or Aquatic Conditions	See IRP Table IRP 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Belton Lake

IRP TABLE 5-5. SMALL DISCHARGE FOR VEHICLE REFUELING

Small Discharge Scenario for Vehicle Refueling	
Size Of Discharge	300 gallons
Potential Spill Causes	A vehicle is being refueled at the gasoline dispenser. The vehicle is left unattended by the driver after driver rigs the fuel nozzle to remain open. The vehicle tank fills up and overflows when the automatic shutoff on the nozzle fails to close. Fuel overflows at the rate of 15 gallons per minute. The driver returns to the vehicle 20 minutes later to discover spill.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.7 miles to Clear Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Across the ground to a centrally located drain that leads to a 15,000-gallon OWS. The OWS discharges to a storm water drainage. This spill should be contained on Fort Hood property.
Location of Material Spilled	Adjacent to the BFSF
Material Discharged	Gasoline
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek

IRP TABLE 5-6. SMALL DISCHARGE FOR VEHICLE MAINTENANCE

Small Discharge Scenario for Vehicle Maintenance	
Size Of Discharge	100 gallons
Potential Spill Causes	A refueling vehicle is being overhauled. As the vehicle is being lowered after replacement of the wheel bearings, a tool cart that has been left under the vehicle accidentally punctures the fuel tank.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	N/A
Spill Pathways and Likelihood of Spill Traveling Offsite	Pours out onto the floor and travels via floor inlets to one of three OWSs. The OWSs drain to a large holding tank that discharges to the sanitary sewer system. This spill should be contained on Fort Hood property.
Location of Material Spilled	Inside Building 88030
Material Discharged	Diesel fuel
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Fort Hood Wastewater Treatment Plant

IRP TABLE 5-7. SMALL DISCHARGE FROM A PUMPING STATION

Small Discharge Scenario from a Pumping Station	
Size Of Discharge	1,000 gallons
Potential Spill Causes	During a tank truck transfer operation, a faulty pipe fitting at the loading rack fails under the internal pressure of 200 pounds per square inch **(PSI)**. Before personnel can shut down pumping, aviation fuel is discharged onto the rack/pump station floor.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.7 miles to Clear Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Onto the pump station curbed concrete floor and through the floor drain to the 10,000-gallon OWS system. Before the incident, rack and pump station drainage system valves were aligned to discharge to the OWS instead of the OWS system's 10,000-gal oil recovery/spill tank. The OWS fails to remove the spilled fuel, and fuel discharges to the storm water drainage system. This spill should be contained on Fort Hood property.
Location of Material Spilled	Building 88002 (pump house) at the BFSF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek

IRP TABLE 5-8. SMALL DISCHARGE FOR LOADING/UNLOADING SURFACE TRANSPORTATION

Small Discharge Scenario for Loading/Unloading Surface Transportation	
Size Of Discharge	100 gallons
Potential Spill Causes	An 8,000-gallon refueler truck is unloading at the HAAF RRF. A filling hose ruptures during the operation discharging fuel.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.6 miles to South Nolan Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Across the concrete unloading stand curbed containment to surface drainage features that lead to a drainage basin. Flow from the drainage basin continues under Warrior Blvd to a concrete channel that flows to an unnamed tributary to South Nolan Creek. This spill is likely to travel beyond Fort Hood property.
Location of Material Spilled	At the HAAF RRF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	South Nolan Creek, Nolan Creek, and Leon River

IRP TABLE 5-9. SMALL DISCHARGE FOR AIRCRAFT REFUELING

Small Discharge Scenario for Aircraft Refueling	
Size Of Discharge	400 gallons
Potential Spill Causes	A helicopter has just been refueled via a refueler tank truck at the RGAAF RRF. As the fill hoses are being removed from the aircraft, an internal check valve fails to close, resulting in discharge.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.1 miles to Clear Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	On the concrete parking ramp flowing northward towards an unnamed tributary of Clear Creek. This spill should be contained on Fort Hood property.
Location of Material Spilled	Aircraft Refueling Ramp
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek

IRP TABLE 5-10. SMALL DISCHARGE FOR AIRCRAFT MAINTENANCE

Small Discharge Scenario for Aircraft Maintenance	
Size Of Discharge	55 gallons
Potential Spill Causes	Personnel are overhauling an engine. Lubricating oil from the engine is drained into a drum. Inadvertently, the drum of used oil is knocked over, spilling its contents.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	N/A
Spill Pathways and Likelihood of Spill Traveling Offsite	On the concrete shop floor, flowing into the floor drains, which lead to two OWSs; eventually discharging to the sanitary sewer system. This spill should be contained on Fort Hood property.
Location of Material Spilled	Building 6940 (Aircraft Maintenance)
Material Discharged	Used lubricating oil
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Fort Hood Wastewater Treatment Plant

IRP TABLE 5-11. SMALL DISCHARGE FOR AIRCRAFT OPERATIONS

Small Discharge Scenario for Aircraft Operations	
Size Of Discharge	1,000 gallons
Potential Spill Causes	Just after takeoff, the tail rotor of an AH64 malfunctioned, causing the pilot to lose control. The fuel tank ruptures as a result of the hard landing, spilling JP-8 onto the runway.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.6 miles to South Nolan Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Across concrete on runway and into storm drainage system to the drainage basin that leads to a concrete channel that flows into South Nolan Creek. This spill is likely to travel beyond Fort Hood property.
Location of Material Spilled	Flight line
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	South Nolan Creek, Nolan Creek, and Leon River

IRP TABLE 5-12. SMALL DISCHARGE FOR FACILITY PIPING

Small Discharge Scenario for Facility Piping	
Size Of Discharge	2,100 gallons
Potential Spill Causes	A leak develops in the pipeline from the BFSF to the DOL AST. Fuel flows from underground pipe to the surface and follows surface drainage gradients to storm water drainage features that lead to Clear Creek.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.7 miles to Clear Creek.
Spill Pathways and Likelihood of Spill Traveling Offsite	Across the ground towards storm drainage features. This spill should be contained on Fort Hood property.
Location of Material Spilled	At BFSF complex
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek

IRP TABLE 5-13. SMALL DISCHARGE FROM A STORAGE TANK

Small Discharge Scenario from a Storage Tank	
Size Of Discharge	110 gallons
Potential Spill Causes	One night, the float switch valve on the supply line to an emergency generator with a self contained diesel fuel tank generator fails causing a discharge to the ground.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 2.0 miles to tributaries that lead to South Nolan Creek.
Spill Pathways and Likelihood of Spill Traveling Offsite	Over ground to storm water drainage system that empties into tributaries to South Nolan Creek. This spill should be contained on Fort Hood property.
Location of Material Spilled	Building 1001, III Corps Operations Center
Material Discharged	Diesel fuel
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Unnamed tributaries to South Nolan Creek, and South Nolan Creek

IRP TABLE 5-14. MEDIUM DISCHARGE FROM A PUMPING STATION

Medium Discharge Scenario from a Pumping Station	
Size Of Discharge	10,000 gallons
Potential Spill Causes	During a routine security patrol, a fuel spill was discovered at the RGAAF AF between the hours of 0001 and 0030. The source of the spill was a ruptured gasket on the discharge side of the fuel pump that services the South Ramp refueling pits.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 2.0 miles to Reese Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Flowing from road via storm drainage to unnamed tributary to Reese Creek. This spill is likely to travel beyond Fort Hood property.
Location of Material Spilled	RGAAF AF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Reese Creek and Lampasas River

IRP TABLE 5-15. MEDIUM DISCHARGE FOR LOADING/UNLOADING SURFACE TRANSPORTATION

Medium Discharge Scenario for Loading/Unloading Surface Transportation	
Size Of Discharge	8,000 gallons
Potential Spill Causes	A bulk refueler tank truck is heading toward the RGAAF RRF has a tire blowout and overturns at the facility. The tank ruptures as a result and discharges the entire contents of the tank.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.1 miles to Clear Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Fuel would flow via overland surface features to Clear Creek. Fuel flows northward to Clear Creek, eventually discharging into House Creek and Cowhouse Creek This spill would not likely travel beyond Fort Hood property.
Location of Material Spilled	RGAAF RRF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table FRP 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek.

IRP TABLE 5-16. MEDIUM DISCHARGE FOR AIRCRAFT REFUELING

Medium Discharge Scenario for Aircraft Refueling	
Size Of Discharge	4,000 gallons
Potential Spill Causes	An AH64 is being refueled by a refueler truck during a rain storm. During the refueling operations, a flight line vehicle operator loses control of his vehicle and crashes into the refueler truck, rupturing the tank and causing the remaining JP-8 to discharge.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 2.0 miles to Reese Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	On the concrete parking ramp flowing southeast towards the end of the ramp, then downhill to an unnamed tributary to Reese Creek. This spill is likely to travel beyond Fort Hood property.
Location of Material Spilled	Aircraft Refueling Ramp, RGAAF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Reese Creek and Lampasas River

IRP TABLE 5-17. MEDIUM DISCHARGE FOR FACILITY PIPING

Medium Discharge Scenario for Facility Piping	
Size Of Discharge	3,000 gallons
Potential Spill Causes	During a severe rain, the driver of a bulk tanker misjudged road conditions and skids into the piping at the loading headers, rupturing the pipe during a pumping operation. Before the pumps could be shut down, several thousand gallons of fuel discharged.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.6 miles to South Nolan Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Across concrete on runway and into storm drainage system to the drainage basin that leads to a concrete channel that flows into South Nolan Creek. This spill is likely to travel beyond Fort Hood property.
Location of Material Spilled	HAAF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	South Nolan Creek, Nolan Creek, and Leon River

IRP TABLE 5-18. MEDIUM DISCHARGE FROM A STORAGE TANK

Medium Discharge Scenario from a Storage Tank	
Size Of Discharge	36,000 gallons
Potential Spill Causes	A tornado touches down near the BFSF fuel storage tanks. Flying debris causes serious damage Tank 1 and the containment wall.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.7 miles to Clear Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Pouring out from holes in the tank, JP-8 flows downhill to an unnamed tributary to Clear Creek. Fuel flows northward to Clear Creek, eventually discharging into House Creek and Cowhouse Creek. This spill should be contained on Fort Hood property.
Location of Material Spilled	BFSF
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek

5.4 WORST-CASE DISCHARGE SCENARIO

As discussed in Section 12, the worst-case discharge for this facility has been determined to be capacity of the largest aboveground storage tank with adequate secondary containment, plus the capacities of those aboveground storage tanks without adequate secondary containment. The computed value of this worst-case discharge is 652,187 gallons. However, the most probable worst-case discharge would be a catastrophic failure of the largest bulk storage tank (Tank 111) with a capacity of 636,488 gallons. This tank is located in the BFSF.

Periodic scheduled API 653 tank inspections have ensured that the tank is structurally sound and reasonably free from corrosion, making physical failure due to age or condition of the equipment improbable. Sabotage is unlikely due to security precautions inherent in military operations. Other probable causes, (aircraft accident, an act of war, or an act of God) are unforeseeable, but could occur.

Under any of these circumstances, the tank is contained within a concrete containment capable of containing 1,000,000+ gallons. A drain valve on the containment area, used to allow the discharge of storm water from the secondary containment, is locked in the closed position unless uncontaminated storm water accumulations are being discharged. Failure of this valve (either through a mechanical malfunction or failure to properly secure the valve) could result in discharge of the majority of the tank contents during a catastrophic release.

Unless unforeseen circumstances compromise the integrity of the containment structures, discharges to the adjacent surface drainage features are unlikely. The most likely method of containment bypass would result as a catastrophic failure of the tank releasing the entire tank volume at one instant. The massive volume could create a wave effect capable of flooding over the top of the containment area and flowing northward down-gradient through surface drainage

features toward an unnamed tributary to Clear Creek. In addition, the force created by the instantaneous release could crush, crack, or break the containment area resulting in uncontrolled releases. As shown in Sections 3.5.3 and 11, the worst-case discharge would flow northward from the BFSF. The flow would enter a drop-inlet and go under Clarke Road. From the inlet, it will discharge into a vegetated area to the northeast of the BFSF. The discharge would flow in a northeasterly direction following surface drainage features and seasonally-dry creek beds. The discharge would then flow east until it reaches Clear Creek in about 1.7 miles. Flow would continue northward on Clear Creek for approximately 4.7 miles until it reaches House Creek. The discharge would then flow in a northeasterly direction until it reaches Cowhouse Creek in approximately 4.6 miles. The discharge would then flow in an easterly direction until it reached the western arm of Belton Lake in approximately 13.2 miles. The total distance traveled before the discharge would reach Belton Lake is approximately 24.2 miles. This scenario will be used to determine planning distance, even though the probability of this occurring is very low.

Spill detection should be immediate, as fuel operators or other personnel would be present during normal working hours. After-hours, security patrols would immediately report the discharge to 911. It is unlikely that sufficient spill response materials would be located near the discharge under this scenario. The Fort Hood spill response team would arrive on site within 10 minutes of notification. In addition, the primary worst-case discharge OSRO would be activated. OSRO contractors identified in IRP Table 3-3 have offices located with four hours of Fort Hood. They would be able to respond with containment, recovery, and storage equipment well within Tier 1 times. If needed, DoD sources in IRP Table 3-3 could also be activated and be on scene within 15 hours.

Impacts on downstream fish and wildlife sensitive areas and recreational areas are highly likely if the spill was not contained within the boundaries of Fort Hood.

IRP TABLE 5-19. WORST-CASE DISCHARGE FROM A STORAGE TANK

Worst-Case Discharge Scenario from a Storage Tank	
Size Of Discharge	636,488 gallons
Potential Spill Causes	A catastrophic failure of Tank 111 at the BFSF results in sudden and massive release of aviation fuel. The initial spill wave overtops the dike and also removes a section of the dike.
Proximity to Down-gradient Wells and Drinking Water Intakes.	N/A
Proximity of Fish and Wildlife, Sensitive Environments, and Waterways	Approximately 1.7 miles to Clear Creek
Spill Pathways and Likelihood of Spill Traveling Offsite	Across the ground towards storm drainage features, then to the unnamed tributary to Clear Creek. WCD responders should arrive within Tier 1 times to prevent this discharge from leaving Fort Hood property.
Location of Material Spilled	Tank 111, Bulk Fuel Storage Facility
Material Discharged	JP-8
Weather or Aquatic Conditions	See IRP Table 5-20
Possible Remediation Equipment	See Section 1.4 in the ERAP or Section 3.2
Possible Chain Reaction of Failures	None
Potential Receiving Navigable Waters	Clear Creek, House Creek, and Cowhouse Creek

5.5 WEATHER AND AQUATIC CONDITIONS IMPACTING SPILL RESPONSE

IRP Table 5-20 provides information on weather and other conditions that could impact spill response operations.

IRP TABLE 5-20. WEATHER AND AQUATIC CONDITIONS IMPACTING SPILL RESPONSE

Weather and Aquatic Conditions Impacting Spill Response					
CONDITION	**SEASON**				**LIMITATIONS**
	SP	**SU**	**F**	**W**	
Predominant Winds	S: 11 mph	S: 10 mph	S: 9 mph	S: 10 mph	Heat index issues could make response difficult during warm temperatures.
Electrical Storms	X	X	X	X	No response possible during storm.
Hurricanes		X	X		No response possible during storm.
Tornadoes	X	X	X		Texas averaged 124 tornadoes a year between 1950 and 1995. They are most frequent in Spring and early Summer, but can happen year around.
Precipitation	X	X	X	X	Annual rainfall is approximately 34 inches. May, June, September, and October are typically the wettest months. December and January are the driest months.
Temperature Range	26 – 64	55 – 78	32 – 69	15 - 33	Difficult to combat spills in rainy weather that is sometimes typical during the warm weather month.
Current Speed: Due to the general shallow depth of creeks, current is not normally an issue. However, after a heavy rain, currents in excess of 1.5 knots could impact booming operations.					High current would limit booming strategies.
Other Conditions and Limitations:	In general, from a response perspective, summer months are the hardest seasons to combat a spill due to the increased risk of heat-related issues.				

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6. DISCHARGE DETECTION SYSTEMS

6.1 DISCHARGE DETECTION BY PERSONNEL

All tank truck loading and unloading operations, including bulk fuel transfer operations at the DFSP facilities are manned and supervised operations. Aboveground storage tanks and other storage containers at Fort Hood are visually inspected by personnel once per day to identify any leaks or spills and any problems or deficiencies with emergency response/safety equipment. Inspection checklists are located in Appendix F of this IRP. A weekly inspection is conducted using the AST inspection form, a checklist used to verify that an adequate visual inspection has been conducted. The facility manager will be informed of any deficiencies noted during the inspection. In the event that a spill or leak is discovered, Fort Hood will implement Phase I response activities. These activities are described in Section 6.2. Section 7 contains a complete discussion of emergency response procedures. Emergency response notification will occur according to the procedures outlined in Section 3.1 of this document.

6.2 PHASE I – DISCOVERY, NOTIFICATION, AND INITIAL RESPONSE

6.2.1 Response of Person Discovering Spill

Personnel discovering a discharge/spill incident, or threat of an incident, where there is a danger of fire or release of oil or hazardous materials onto the land, into the air and/or into the water that would threaten human health and safety and/or the environment **shall immediately do the following:** *WARNING – DO NOT ATTEMPT ACTIVITIES IN CONFINED SPACES OR IN THE PRESENCE OF PETROLEUM/CHEMICAL VAPORS. EVACUATE AREA AND IMMEDIATELY CONTACT FIRE DEPARTMENT.*

- Provide first aid to any injured persons; call 911 if assistance is required.
- Evaluate the discharge/spill incident according to the following reporting criteria.
  1) Have over 25 gallons of petroleum products been released?
  2) Has any hazardous substance been released?
  3) Does the spill cover a 100-square-foot area or greater?
  4) Does the spill appear to be harmful or potentially threaten the public health and welfare?
  5) Does the spill cause a visible sheen on water?

If the spill meets one or more of the above criteria, immediately notify:

- Spill site supervisor/commanding officer.
- FHFES @ 911 or Fire Dispatch 287-3908.

  Note: When reporting the spill, give the information listed in the following checklist:

Check	Activity
	Name of person making the report
	Name and location of facility
	Telephone number where reporting person can be reached
	Date and time of discharge or fire discovery
	Brief description of incident and any possible hazards to human health and/or the estimated quantity of material or waste involved
	Identification of the material(s) involved
	Extent of any contamination

	Extent of any injuries

- If spill does not exceed criteria, notify:
  1) Spill site supervisor/commanding officer.
  2) DPW Environmental Division @ 287-6499 (day).

6.2.2 Response of Supervisor/Commanding Site Officer

The supervisor/commanding site officer shall:

- Identify the source of the spill/release (if it can be performed safely).
- Activate the sites emergency alarm system, if necessary.
- Ensure that the site is evacuated, if necessary.
- Ensure that initial notifications to FHFES, DPW Environmental Division, and Fort Hood organization responsible for spill have been made.
- Ensure that the following immediate spill response actions are taken, provided that these actions can be performed safely and do not endanger personnel. *WARNING – DO NOT ATTEMPT ACTIVITIES IN CONFINED SPACES OR IN THE PRESENCE OF PETROLEUM/CHEMICAL VAPORS. EVACUATE AREA UNTIL FIRE DEPARTMENT ARRIVES AND ASSUMES CONTROL*.

Oil Spill Response - Immediate actions

1) STOP THE PRODUCT FLOW – Act quickly to secure pumps, close valves, close spill drains, tighten gaskets, etc.
2) WARN PERSONNEL – Enforce safety and security measures and secure area. Keep non-essential persons away, isolate a 1/2 mile radius if tank or tankers are on fire. Otherwise, isolate a 150-foot radius. Ensure necessary personnel stay upwind and avoid low-lying areas.
3) SHUT OFF IGNITION SOURCES – Motors, electrical circuits, open flames, etc.
4) INITIATE CONTAINMENT – Around the tank and/or in the water with oil boom provided at the site.
5) ESTIMATE THE AMOUNT AND TYPE OF OIL SPILLED.

6.2.3 Response of Fire Department

The FHFES is the first responder to the spill. On arrival of the Fire Department, the responding Fire Chief will become the IC and will assume charge of the spill site. The FHFES HAZMAT Team provides technical expertise, assistance, and spill response equipment at the incident and shall perform duties as directed by the IC. The **IC shall**:

- Assess and initiate scene control.
- Initiate necessary evacuations according to evacuation plan in section 1.7 or 3.5 of the IRP.
- Implement oil spill response immediate actions listed above if they have not been conducted.
- Identify and stabilize the spill site to the extent possible.
- Ensure the Fort Hood DPW Environmental Division's IOSC has been contacted.
- Assess the extent of migration of the spill, including checking downstream locations for spill extent.

Fire Fighting Capabilities

Fort Hood has complete fire response with well-trained fire fighting personnel capabilities. Section 1.4 contains a list of fire fighting vehicles and major equipment. In the event of a fire, the IOSC is the point of contact with the Fire Chief. Response time is generally less than 5 minutes for sites located in West Fort Hood, South Fort Hood, and East Fort Hood. Response time for a fire at the BLORA site (Belton Lake) is approximately 20 minutes.

In the event that a spill emergency or fire is beyond the capability of the FHFES, or in a spill situation that involves multi-jurisdictional boundaries, mutual aid agreements exist with the following fire departments:

- Bell County
- Copperas Cove
- Coryell County/Gatesville
- Harker Heights
- Killeen
- Lampasas County
- Nolanville

Mutual aid response will be made in accordance with existing agreements with these fire departments and only upon authorization of the Command Group and the Fire Chief.

6.2.4 Response of HAZMAT Team

Once an incident involving hazardous materials has been stabilized, the HAZMAT Team shall: initiate containment by termination of the discharge if not already completed, including:

- Righting an overturned/spilling container;
- Plugging a leak;
- Closing valves;
- Pumping contents of a leaking container/tanks into another (off-loading);
- Placing a leaking container into an over-pack container.

6.2.5 Response of DPW Environmental Division

The DPW Environmental Division IOSC shall:

- Assess the following:
  1) Spill conditions, including extent of spill, identification of hazards and immediate areas threatened.
  2) Quantity of material spilled.
  3) Corrective action.
  4) Response resources necessary to combat spill, including spill contractor support necessary. **The IOSC shall follow guidelines established in Section 7.2 of this IRP for small, medium and worst case spills in determination of response resources necessary.**
  5) Fort Hood organization responsible for source of spill.
- Provide technical assistance to the organization responsible for the source of the spill.
- Notify the qualified individual if a spill response contractor or additional resources outside capability of Fort Hood are necessary.
- Obtain necessary in-house Installation Response Team **(IRT)** from:
  1) DPW Environmental Division;

2) Major Subordinate Commands personnel and equipment;
3) Installation military assets.

- Based on assessment, make appropriate initial notifications according to the Emergency Notification Phone List found in Section 1.2 or 3.1 of the IRP. If unable to complete, contact DPW Environmental Division for additional support.
- Initiate containment measures.

6.2.6 Response of Qualified Individual

The qualified individual shall use authority to immediately access funding to initiate cleanup activities in the event that spill-cleanup contractor resources are required.

6.3 AUTOMATED DISCHARGE DETECTION

All DFSP bulk fuel storage ASTs have automatic tank gauge systems to detect discharges or leaks. These ASTs are all within sufficiently impervious secondary containment dikes to facilitate detection of any aboveground discharges or leaks from the tanks and appurtenances in the dikes.

The RGAAF AF South Ramp hydrant's buried stainless steel supply and return pipelines and lateral lines has a leak detection with alarm system. The hydrant piping, including the hydrant, surge suppression, and isolation valve pits, is contained in a trench lined with a fuel resistant 20 MIL Hypalon liner. A perforated PVC line along the trench contains a leak detection cable that detects fuel collected in the lined trench.

Fort Hood service stations have automatic spill detection systems which sound an alarm to alert the attendant when a spill occurs at an AST or UST. The ASTs and USTs are double-walled tanks with interstitial monitors that alarm when detecting fuel in the interstitial space. Following activation of an alarm, the attendant, or other qualified inspector will immediately conduct a visual inspection of the tank and sample the interstitial space using a sample tube between the walls. If a leak or spill is verified, the appropriate emergency response personnel will be notified immediately. The notification phone list is contained in Sections 1.2 and 3.1. Similar ASTs and automatic detection systems are located at the BLORA marina (4,000-gallon AST), and DPW Motor Pool (two 12,000-gallon ASTs).

7. PLAN IMPLEMENTATION

This section explains in detail how Fort Hood will implement the spill emergency response plan. The following is a description of response actions to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent discharges described in Section 5 of this IRP. This section identifies the response resources for small, medium, and worst case spills; disposal plans for contaminated materials resulting from spill cleanup; and containment and drainage planning. A list of those personnel involved in the cleanup is provided. Procedures that Fort Hood will use, where appropriate or necessary, to update this IRP after an oil spill event and the time frame to update the plan are described.

7.1 IMPLEMENTATION OF SPILL EMERGENCY RESPONSE PLAN, FORT HOOD

This plan discusses the four phases of emergency response at Fort Hood. Roles and responsibilities for all emergency response personnel are discussed.

Spills may be discovered during routine inspections, by alarms, by observation by site personnel during operations, by non-site personnel, and by security personnel. This section describes the four phases of Fort Hood's response to a spill.

7.1.1 Phase I – Discovery, Notification, and Initial Response

7.1.1.1 Response of Person Discovering Spill

Personnel discovering a discharge/spill incident, or threat of an incident, where there is a danger of fire or release of oil or hazardous materials onto the land, into the air and/or into the water that would threaten human health and safety and/or the environment **shall immediately do the following:** *WARNING -- DO NOT ATTEMPT ACTIVITIES IN CONFINED SPACES OR IN THE PRESENCE OF PETROLEUM/CHEMICAL VAPORS. EVACUATE AREA AND IMMEDIATELY CONTACT FIRE DEPARTMENT.*

- Provide first aid to any injured persons; call 911 if assistance is required.
- Evaluate the discharge/spill incident according to the following reporting criteria.
  1) Have over 25 gallons of petroleum products been released?
  2) Has any hazardous substance been released?
  3) Does the spill cover a 100-square-foot area or greater?
  4) Does the spill appear to be harmful or potentially threaten the public health and welfare?
  5) Does the spill cause a visible sheen on water?
- If the spill meets one or more of the above criteria, immediately notify:
  1) Spill site supervisor/commanding officer.
  2) FHFES @ 911 or Fire Dispatch @ 287-3908.

  Note: When reporting the spill, give the information listed in the following checklist:

Check	Activity
	Name of person making the report
	Name and location of facility
	Telephone number where reporting person can be reached
	Date and time of discharge or fire discovery
	Brief description of incident and any possible hazards to human health and/or the estimated quantity of material or waste involved
	Identification of the material(s) involved
	Extent of any contamination
	Extent of any injuries

- If the spill does not exceed criteria, notify:
  1) Spill site supervisor/commanding officer.
  2) DPW Environmental Division @ 254-287-6499 (day).

7.1.1.2 Response of Supervisor/Commanding Site Officer

The supervisor/commanding site officer shall:

- Identify the source of the spill/release (if it can be performed safely).
- Activate the site's emergency alarm system, if necessary.
- Ensure that the site is evacuated, if necessary.
- Ensure that initial notifications to FHFES, DPW Environmental Division, and Fort Hood organization responsible for spill have been made.
- Ensure that the following immediate spill response actions are taken, provided that these actions can be performed safely and do not endanger personnel. *WARNING -- DO NOT ATTEMPT ACTIVITIES IN CONFINED SPACES OR IN THE PRESENCE OF PETROLEUM/CHEMICAL VAPORS. EVACUATE AREA UNTIL FIRE DEPARTMENT ARRIVES AND ASSUMES CONTROL*.

Oil Spill Response - Immediate actions

1) STOP THE PRODUCT FLOW-- Act quickly to secure pumps, close valves, close spill drains, tighten gaskets, etc.
2) WARN PERSONNEL-- Enforce safety and security measures and secure area. Keep non-essential persons away, isolate a 1/2 mile radius if tank or tankers are on fire. Otherwise, isolate a 150-foot radius. Ensure necessary personnel stay upwind and avoid low lying areas.
3) SHUT OFF IGNITION SOURCES -- Motors, electrical circuits, open flames, etc.
4) INITIATE CONTAINMENT -- Around the tank and/or in the water with oil boom provided at the site.
5) ESTIMATE THE AMOUNT AND TYPE OF OIL SPILLED.

7.1.1.3 Response of Fire Department

The FHFES is the first responder to the spill. On arrival of the Fire Department, the responding Fire Chief will become the IC and will assume charge of the spill site. The FHFES HAZMAT Team provides technical expertise, assistance, and spill response equipment at the incident and shall perform duties as directed by the IC. The **IC shall**:

- Assess and initiate scene control.

- Initiate necessary evacuations according to evacuation plan in section 1.7 or 3.5 of the IRP.
- Implement oil spill response immediate actions listed above if they have not been conducted.
- Identify and stabilize the spill site to the extent possible.
- Ensure the Fort Hood DPW Environmental Division's IOSC has been contacted.
- Assess the extent of migration of the spill, including checking downstream locations for spill extent.

Fire Fighting Capabilities

Fort Hood has complete fire response with well-trained fire fighting personnel capabilities. In the event of a fire, the IOSC is the point of contact with the Fire Chief. Response time is generally less than 5 minutes for sites located in West Fort Hood, South Fort Hood, and East Fort Hood. Response time for a fire at the BLORA site (Belton Lake) is approximately 20 minutes and approximately 30 minutes for North Fort Hood.

In the event that a spill emergency or fire is beyond the capability of the FHFES, or in a spill situation that involves multi-jurisdictional boundaries, mutual aid agreements exist with the following fire departments:

- Bell County
- Copperas Cove
- Coryell County/Gatesville
- Harker Heights
- Killeen
- Lampasas County
- Nolanville

Mutual aid response will be made in accordance with existing agreements with these fire departments and only upon authorization of the Command Group and the Fire Chief.

7.1.1.4 Response of HAZMAT Team

Once an incident involving hazardous materials has been stabilized, the HAZMAT Team shall initiate containment by termination of the discharge if not already completed, including:

- Righting an overturned/spilling container;
- Plugging a leak;
- Closing valves;
- Pumping contents of a leaking container/tanks into another (off-loading);
- Placing a leaking container into an over-pack container.

7.1.1.5 Response of DPW Environmental Division

The DPW Environmental Division IOSC shall:

- Assess the following:
  1) Spill conditions, including extent of spill, identification of hazards and immediate areas threatened.
  2) Quantity of material spilled.
  3) Corrective action.
  4) Response resources necessary to combat spill, including spill contractor support, if necessary. **The IOSC shall follow guidelines established in Section 7.2 of this IRP for small, medium, and worst case spills in determination of response resources necessary.**
  5) Fort Hood organization responsible for source of spill.

- Provide technical assistance to the organization responsible for the source of the spill.
- Notify the qualified individual if a spill response contractor or additional resources outside capability of Fort Hood are necessary.
- Obtain necessary in-house Installation Response Team from:
  1) DPW Environmental Division;
  2) Major Subordinate Commands personnel and equipment;
  3) Installation military assets.
- Based on assessment, make appropriate initial notifications according to Emergency Notification Phone List found in Section 1.2 or 3.1 of the IRP. If unable to complete, contact DPW Environmental Division for additional support.
- Initiate containment measures.

7.1.1.6 Response of Qualified Individual

The qualified individual shall use authority to immediately access funding to initiate cleanup activities in the event the spill cleanup contractor resources are required.

7.1.2 Phase II – Containment and Countermeasures

The **IOSC shall initiate** the following defensive actions as soon as possible after discovery of the spill:

- Construction of berms, dams, fences, or other barriers to contain the flow of pollutants.
- Placement of sorbent socks or deployment of boom to contain the flow of oil on the surface of water bodies. Sorbent socks and booms may be deployed at the locations specified in Section 7.4 of this IRP.

7.1.3 Phase III – Cleanup and Disposal

Cleanup and disposal includes removal or chemical treatment of pollutants and biological remediation, as appropriate.

Under direction of the IOSC, the **organization or contractor accountable for the source of the spill shall:**

- Maintain responsibility for the cleanup.
- Begin cleanup as soon as possible after discovery and containment and within the time frame established in Section 7.1 of this IRP.
- Extract or treat pollutants until the affected area is free of pollution from the spill.
- Ensure that pollutants are not washed into drainage systems.
- Shall not use dispersal or sink pollutants unless authorized by U.S. EPA and Texas.
- Dispose of recovered pollutants, contaminated soil and absorbents per IOSC's direction and in accordance with the Disposal Plans detailed in Section 7.3 of this IRP.

7.1.4 Phase IV – Restoration

The IOSC shall:

- Assess damages caused by the spill.
- Determine means to restore spill site to pre-discharge conditions, including:

1) Consultation with appropriate Fish and Wildlife managers and resource agencies to determine fish, wildlife, and vegetation restoration measures in critical habitats. These include:
   - U.S. Department of the Interior: (404) 347-2836
   - Texas Department of Parks & Wildlife: (512) 389-4394
   - Texas General Land Office: (512) 463-5100
   - Texas Commission on Environmental Quality: (512) 908-2513
2) Obtaining necessary permits or clearances from state and federal agencies.
3) Evaluation and approval of materials used in restoration.

UPDATE OF EMERGENCY RESPONSE PROCEDURES:

Fort Hood will update the Emergency Response Plan procedures as follows:

- After post-exercise debriefing defines improvements to the plan.
- After an emergency spill situation identifies improvements that could be made in the plan.
- After an organizational change.
- After annual review determines that an update is necessary.

7.2 RESPONSE RESOURCES FOR SMALL, MEDIUM, AND WORST CASE SPILLS

Fort Hood has identified the response resources necessary to respond to small, medium and worst case spills (as shown in IRP Table 1-1 and IRP Table 3-1). Fort Hood also ensures the availability of the additional response resources for these spills, by contract or other approved means as described in 40 CFR 112.2 (as shown in Section 13). All response equipment is designed to function in the operating environment at Fort Hood.

7.2.1 Response Resources Required for Small Spills

A small spill at Fort Hood is defined as any discharge volume less than or equal to 2,100 gallons. The response resources required and available for a small discharge at Fort Hood include the following:

- Fort Hood has 1,850 feet of containment boom and the necessary equipment to deploy the boom within one hour of the discovery of the spill.
- Fort Hood has five vacuum trucks capable of recovering a combined 267,840 gallons per day of oil. These resources are available at the facility within 2 hours of the detection of the oil discharge.
- A daily oil storage capacity for recovered oily material equivalent to 4,200 gallons (twice the effective daily recovery capacity required at the small discharge spill site). Fort Hood has the capacity to store 80,000 gallons of recovered oily material in four 20,000-gallon used oil tanks at the BioSite Bulk Oil location on Fort Hood.

7.2.2 Response Resources Required for Medium Spills

A medium spill is defined as any discharge volume greater than 2,100 gallons and less than or equal to 36,000 gallons. The response resources for a medium spill at Fort Hood include the following:

- Fort Hood has 1,850 feet of containment boom and the necessary equipment to deploy the boom within one hour of the discovery of the spill.

- Oil recovery devices identified to meet the applicable medium spill volume planning criteria located such that they are capable of arriving on-scene within 12 hours. Fort Hood has an effective daily recovery capacity for oil recovery devices that exceed 18,000 gallons (50 % of the planning volume applicable for Fort Hood as determined in section 4.1 of 40 CFR 112 Appendix F). Fort Hood has five vacuum trucks capable of recovering a combined 267,840 gallons per day of oil. These resources are available at the facility within 2 hours of the detection of the oil discharge.
- A daily oil storage capacity for recovered oily material equivalent to twice the effective daily recovery capacity, or 36,000 gallons, is available at Fort Hood. Fort Hood has the capacity to store 80,000 gallons of recovered oily material in four 20,000-gallon used oil tanks at the BioSite Bulk Oil location on Fort Hood.

7.2.3 Response Resources Required for Worst Case Spills

As shown in IRP Table 7-2 and in Section 12, the worst case discharge (calculated using methods described in Part A of Appendix D to 40 CFR 112) is 652,187 gallons. Section 12 also contains the worksheet to plan the volume of response resources for a worst-case discharge at Fort Hood. The on-water recovery volume for Fort Hood for JP-8 and other POL was at least 322,560 gallons per day (see IRP Table 1-1 or 3-1).

Oil spill response resources identified in this IRP are available to meet the worst case planning volume within the following times specified for the applicable response tier listed below:

Response Tier	Tier 1	Tier 2	Tier 3
Response Time	12 hours	36 hours	60 hours
Required Capacity	19,566 gpd	26,088 gpd	39,131 gpd

The shoreline cleanup capacity required for Fort Hood is 65,219 gallons. Shoreline cleanup capacity is available through Fort Hood's spill cleanup contractor.

Tier 1 (12-hour response time):

The calculated Tier 1 on-water oil recovery capacity is 19,566 gpd. Necessary spill response resources to recover this on-water spill volume are available at Fort Hood. These resources include:

- Oil recovery devices capable of on-water oil recovery of 19,566 gpd are located at Fort Hood and are capable of arriving on-scene within 12 hours. Fort Hood has five vacuum trucks capable of recovering a combined 267,840 gpd of oil. These resources are available at the facility within 2 hours of the detection of the oil discharge.
- A daily oil storage capacity for recovered oily material equivalent to twice the effective daily recovery capacity of 39,131 gpd. Fort Hood has the capacity to store 104,000 gallons. This capacity is available in the form of three 8,000-gallon mobile oil storage tankers located within the boundary of Fort Hood and four 20,000-gallon tanks at the BioSite Bulk Fuel location.
- Fort Hood has 1,850 feet of containment boom and the necessary equipment to deploy the boom within one hour of the discovery of the spill.

Additional resources, as needed, are available from the OSROs listed in Section 13.

These resources are capable of sustaining operations for a minimum of three days.

Tier 2 (36-hour response time):

The calculated Tier 2 on-water oil recovery capacity is 26,088 gpd. Necessary spill response resources to recover this on-water spill volume are available at Fort Hood. These resources include:

- Oil recovery devices capable of on-water oil recovery of 26,088 gpd are located at Fort Hood and are capable of arriving on-scene within 36 hours. Fort Hood has five vacuum trucks capable of recovering a combined 267,840 gpd of oil. These resources are available at the facility within 2 hours of the detection of the oil discharge.
- A daily oil storage capacity for recovered oily material equivalent to twice the effective daily recovery capacity of 49,526 gpd. Fort Hood has the capacity to store 104,000 gallons. This capacity is available in the form of three 8,000-gallon mobile oil storage tankers located within the boundary of Fort Hood and four 20,000-gallon tanks at the BioSite Bulk Fuel location.
- Fort Hood has 1,850 feet of containment boom and the necessary equipment to deploy the boom within one hour of the discovery of the spill.

Additional resources, as needed, are available from the OSROs listed in Section 13.

These resources are capable of sustaining operations for a minimum of 3 days.

Tier 3 (60-hour response time):

The calculated Tier 3 on-water oil recovery capacity is 39,131 gpd. Necessary spill response resources to recover this on-water spill volume are available at Fort Hood. These resources include:

- Oil recovery devices capable of on-water oil recovery of 39,131 gpd are located at Fort Hood and are capable of arriving on-scene within 60 hours. Fort Hood has five vacuum trucks capable of recovering a combined 267,840 gpd of oil. These resources are available at the facility within 2 hours of the detection of the oil discharge.
- A daily oil storage capacity for recovered oily material equivalent to twice the effective daily recovery capacity of 73,884 gpd. Fort Hood has the capacity to store 104,000 gallons. This capacity is available in the form of three 8,000-gallon mobile oil storage tankers located within the boundary of Fort Hood and four 20,000-gallon tanks at the BioSite Bulk Fuel location.
- Fort Hood has 1,850 feet of containment boom and the necessary equipment to deploy the boom within one hour of the discovery of the spill.

Additional resources, as needed, are available from the OSROs listed in Section 13.

These resources are capable of sustaining operations for a minimum of 3 days.

7.3 DISPOSAL PLANS

This section describes how and where Fort Hood intends to recover, reuse, decontaminate, or dispose of materials after a discharge has occurred.

An oil spill at Fort Hood has the potential to generate up to 98,512 gallons of oil (39,131 gallons from on-water recovery and 65,219 gallons from shoreline cleanup). Fort Hood has the capacity to store 104,000 gallons. This capacity is available in the form of three 8,000-gallon mobile oil storage tankers located within the boundary of Fort Hood and four 20,000-gallon tanks at the BioSite Bulk Fuel location. Additional storage capacity would be available through the use of other military portable containers, such as the M967A-1 trailer tanks (capacity = 5,000 gallons each) or contracted OSROs. Disposal of this material will be coordinated through a contractor.

The DPW Environmental Division operates the Classification Unit **(CU)**, located at Building 1345, 37th Street and North Avenue. Fort Hood's CU is unique to the US Army. The CU is a multi-purpose operation for the management of hazardous materials and waste, reusable materials, recyclable materials, and other associated products. All used products (except used oil and fuel) and hazardous waste generated by Fort Hood units, tenants, and contractors are accepted, classified, repackaged, labeled, stored, and processed for disposal at the CU facility. The CU is a <90 Day hazardous waste storage facility registered with the Texas Commission on Environmental Quality.

Immediately after a spill response, the Emergency Coordinator will make arrangements for treatment, storage, or disposal of recovered waste, contaminated soil, surface water, or any other contaminated material. Wastes generated during spill responses, except contaminated soil, will be transported to the CU for temporary storage and classification prior to disposal. Hydrocarbon contaminated soil will be transported to an onsite bioremediation area for ex situ treatment. All materials and wastes generated during a spill response will be managed in the hierarchy of recycle first, then disposal by contract. Materials contaminated with non-hazardous waste will be decontaminated for reuse onsite (e.g., shovels and drums), or disposed of at the onsite solid waste landfill. Disposal facilities and required permits/manifests for materials that may be generated during spill responses are provided in IRP Table 7-1.

IRP TABLE 7-1. DISPOSAL FACILITIES

Material	Disposal Facility	Location	RCRA permit/manifest
Recovered product	Onsite reuse or DRMO contracted recycling facility	Fort Hood, TX or DRMO contracted recycling facility	None
Contaminated soil	Onsite bioremediation area	Fort Hood, TX	None
Contaminated equipment and materials, including drums, tank parts, valves, and shovels	Nonhazardous - Onsite reuse or onsite solid waste landfill Hazardous – DRMO contracted hazardous waste storage facility	Nonhazardous - Fort Hood, TX Hazardous - DRMO contracted hazardous waste storage facility	Nonhazardous - None Hazardous - RCRA Part B Permit. Waste manifested at CU prior to shipment
Personnel protective equipment	Nonhazardous - Onsite reuse or onsite solid waste landfill Hazardous – DRMO contracted hazardous waste storage facility	Nonhazardous - Fort Hood, TX Hazardous - DRMO contracted hazardous waste storage facility	Nonhazardous - None Hazardous - RCRA Part B Permit. Waste manifested at CU prior to shipment
Decontamination solutions	Nonhazardous - Onsite reuse or onsite solid waste landfill Hazardous – DRMO contracted hazardous waste storage facility	Nonhazardous - Fort Hood, TX Hazardous - DRMO contracted hazardous waste storage facility	Nonhazardous - None Hazardous - RCRA Part B Permit. Waste manifested at CU prior to shipment
Adsorbents	Nonhazardous - Onsite reuse or onsite solid waste landfill Hazardous – DRMO contracted hazardous waste storage facility	Nonhazardous - Fort Hood, TX Hazardous - DRMO contracted hazardous waste storage facility	Nonhazardous - None Hazardous - RCRA Part B Permit. Waste manifested at CU prior to shipment
Spent chemicals	Nonhazardous - Onsite reuse or onsite solid waste landfill Hazardous – DRMO contracted hazardous waste storage facility	Nonhazardous - Fort Hood, TX Hazardous - DRMO contracted hazardous waste storage facility	Nonhazardous - None Hazardous - RCRA Part B Permit. Waste manifested at CU prior to shipment

7.4 CONTAINMENT AND DRAINAGE PLANNING

This section describes how Fort Hood could contain and control a spill through drainage, if needed. This section primarily describes containment and drainage of POL in the event of a release. For tanks with sufficient secondary containment (see Appendix C), product will be contained and no drainage will occur. Precipitation that accumulates in secondary containment systems will not be released until it has been examined to ensure that no oil contamination will be discharged with the water. Fort Hood Fuels Management, including DFSP contractor, personnel perform daily inspection of containment equipment. In addition to regular maintenance, these personnel provide expedient repair to any leaks or other problems that could cause contamination of contained water.

7.4.1 Containment Volume

The six bulk storage tanks in the BFSF are located within concrete dike containment areas. Each containment area has a sump and drainage piping for removing precipitation from within the dike. Outlet valves on this piping are kept locked closed. After a storm event, water within the containment area is checked for surface sheen or other evidence of oil before the outlet valves are opened to drain uncontaminated storm water. If there is no evidence of oil, this water is discharged to the storm water drainage that eventually flows into Clear Creek, House Creek, and Cowhouse Creek.

Secondary containment is provided for the tank truck loading/unloading racks and stands at the BFSF. The tank truck load racks and tank truck unload stands have concrete paved and curbed containment pads constructed with gravity quick drainage systems. Belowground drain pipes connect the rack and stand pad sump drains to an OWS or to the OWS recovery/spill tank (AST OWS) in the event of an oil spill at a rack or stand. The capacity of AST OWS, 10,000 gallons, is sufficient to hold the entire content of the largest tank truck compartment loaded at the BFSF racks, which is 8,000 gallons. Outflow from the OWS is discharged into the storm water drainage system that eventually flows into Clear Creek, House Creek, and Cowhouse Creek.

In the event of a POL release on base, available containment volume could be used to temporarily store recovered material until it is reclaimed or disposed of off base. The maximum quantity that could be spilled or released from a catastrophic discharge from Fort Hood major sources is identified in IRP Table 7-2.

IRP TABLE 7-2. MAXIMUM SPILL VOLUMES AND CONTAINMENT

Maximum Spill Volumes and Containment	
Maximum Spill Volume	
Largest aboveground tank (Tank 111) with adequate secondary containment:	Tank volume = 636,488 gallons
Tanks with inadequate secondary containment (see Appendix C))	Total capacity = 15,699 gallons
Worst-case volume is (1) + (2)	652,187 gallons

Maximum Spill Volumes and Containment	
Maximum Spill Volume	
Largest release from pipeline failure	3,000 gallons
Tank truck spill in BFSF loading area	Largest truck compartment volume = 8,000 gallons
Tank truck spill in BFSF unloading area	Largest truck compartment volume = 3,000 gallons
Maximum Containment Volume	
BFSF	1,548,058 gallons
BFSF loading/unloading rack	10,000-gallon OWS and 15,000-gallon holding tank.
Used oil tanks (BioSite Bulk Oil site)	80,000 gallons (four @ 20,000 gallons)
Refueler capacity	24,000 gallons (three @ 8,000)

Additional temporary containment available for use during emergency response will come from the primary worst-case discharge OSRO.

Section 13 identifies a U.S. Coast Guard classified OSRO and BOA contractor (Garner Environmental Services, Inc), U.S. Navy Supervisor of Salvage, and USA Environment, LP as sources for additional containment and storage devices. For example, as a Coast Guard classified OSRO for the Rivers/Canals and Inland operating area, Garner Environmental can provide 2,100,000 gallons per day temporary storage at the Tier 3 level.

7.4.2 Drainage Routes

Drainage from oil storage and transfer areas will follow land contours and diversionary structures into storm water drains and other surface drainage features as described in Sections 1.7.3 and 3.5.3, *Spill Pathways*. IRP Figures 1-2A and 1-2B show the direction of flow of storm drains and receiving surface waters.

7.4.3 Drainage Troughs Construction Material

The construction materials used in drainage troughs are concrete, asphalt, earthen, and typical catch basin and piping infrastructure.

7.4.4 Drainage System Separators

Secondary containment is drained with manually operated gravity-feed discharge pipes. These valves are normally maintained in a locked and closed position. Storm water is drained from secondary containment as necessary in accordance with the guidelines found in the SPCC plan.

7.4.5 Sump Capacity

See the container tables in Appendix C and the site surveys in Appendix D.

7.4.6 Boom/Weir Containment Capacity

IRP Tables 7-3, 7-4, and 7-5 identify bridges and overpasses crossing the potentially affected waterways for the worst-case discharges from the facilities identified in Sections 1.7.3 and 3.5.3.

These could be used as access, "lookout" points, and potential booming locations. These points are generally accessible by motor vehicle for deployment of booms, skimmers, personnel, and other necessary response equipment.

IRP TABLE 7-3. BRIDGES AND OVERPASSES ALONG SPILL PATHWAY TO STILLHOUSE HOLLOW LAKE

Bridge/ Overpass	Accessibility	Waterway	Distance from RGAF
Oakalla Road	Most accessible point is on northwest side of Oakalla Road and southwest of Reese Creek. Four-wheel drive access to creek edge, or walk 100 feet north of road to reach creek. Low flow area. Boat not required.	Reese Creek	~ 2 miles
Maxdale Road	Most accessible point is on southeast side of Maxdale Road and northeast of Reese Creek. Truck may park at this point and access to creek is a short distance. Low flow area. Creek may be forded next to bridge.		~ 3 miles
Hwy 195/440	River is approximately 100 feet wide at this point and requires a boat to cross. Foot path leads to steep path west of highway and south of the river. No boat launch available in this area.	Lampasas River	~ 10.5 miles
Road Crossing - Northwest of Youngsport	Access area to river is private property. Permission is required to gain access.		~ 16.8 miles
Hwy 2484, Southeast of Youngsport	Access area to river is private property. Permission is required to gain access. Most accessible point is at northwest corner of the crossing.		~ 17.9 miles
Stillhouse Hollow Lake	Dependent upon the river flow, it may be possible to launch a boat in Stillhouse Hollow Lake and motor up to the Lampasas River to the target location. A boat ramp is located at the Cedar Gap Park Stillhouse Hollow Lake crossing, south of Harker Heights.		~ 21 miles

IRP TABLE 7-4. BRIDGES AND OVERPASSES ALONG SPILL PATHWAY TO BELTON LAKE

Bridge/ Overpass	Accessibility	Waterway	Distance from BFSF or [RGAAF]
Pump Station Road	Easy access on either side of Pump Station Road	Clear Creek	[~ 1.5 miles]
US 190	Easy access on either east-bound or west-bound side of US 190		[~ 3.7 miles]
Tank Destroyer Road	Easy truck and trailer access on south side of Tank Destroyer Road. Boat can be slid or carried to water's edge through 50 - 75 feet of reed and small scrub.		~ 1.8 miles [~ 4.3 miles]
Copperas Cove Road	Easy truck and trailer access on east of Clear Creek. Parking available near barricade. Boat can be slid or carried to water's edge through 50 - 75 feet of reed and small scrub. Clear Creek is a pool approximately 20 feet wide at this location.		~ 2.2 miles [~ 4.7 miles]
Turkey Run Road	Easy truck and trailer access on north side of Turkey Run Road on both the east and west sides of Clear Creek. East side of Clear Creek provides the easiest access. Parking available on grass. Boat can be slid or carried to water's edge approximately 35 - 50 feet. Clear Creek is approximately 8 feet wide at this point and flowing.		~ 3.9 miles [~ 6.4 miles]
W. Range Road	Pull off on east side of W. Range Road approximately 300 feet south of House Creek (just south of where concrete spillway begins). Avoid tank road running parallel and west of W. Range Road. Drive vehicle on grass until approximately 75 feet from creek. Boat can be slid or carried remaining 75 feet to creek. House Creek is approximately 40 feet wide and flowing at this point.	House Creek	~ 9.4 miles [~ 11.9 miles]
E. Range Road	Avoid west side of road as it is a firing range. On east side of road, approximately 1/8 mile south of Curry Crossing Bridge, is a dirt road running toward Cowhouse Creek. Dirt road tracks to top of creek bank. Access to creek is an unobstructed 20 - 25 feet distance. Creek is approximately 150 feet wide at this point.	Cowhouse Creek	~ 22.0 miles [~ 24.5 miles]

IRP TABLE 7-5. BRIDGES AND OVERPASSES ALONG SPILL PATHWAY TO SOUTH NOLAN CREEK

Bridge/ Overpass	Accessibility	Waterway	Distance from HAAF
Warrior Way	Easy access from inside of fence on Fort Hood property.	Seasonally-dry drainage basin	~ 0.2 miles
Duncan Avenue	Access from Duncan Avenue or N 24th street into the concrete channel.	Concrete-lined channel	~ 0.5 miles
E Rancier Avenue (493)	Access from south side of Route 439.	End of concrete-lined channel and start of unnamed tributary to South Nolan Creek	~ 0.8 miles
Harris Avenue	Access from either side of the bridge through private property.	Unnamed tributary to South Nolan Creek	~ 0.9
Parmer Avenue	Access from either side of the bridge through private property. NW corner has open field for staging.		~ 1.0 miles
Greenwood Avenue	Access from either side of the bridge through private property. NE corner has open field for staging.		~ 1.3 miles
East Avenue G	Access from either side of the bridge through private property.		~ 1.4 miles
South 28th Street	Access from either side of the bridge through private property. SE corner has open field for staging. SW corner has paved parking lot for staging.		~ 1.5 miles
S W. S. Young Drive	Access from south side. Either side has paved parking lot for staging.	South Nolan Creek	~ 1.8 miles
S 38th Street	Access from SW or NW side.		~ 2.6 miles
S Twin Creek Drive	Access from either side over grassy terrain.		~ 3.6 miles
N Roy Reynolds Drive	Access from either side over grassy/shrub covered terrain.		~ 4.7 miles
N Amy Lane	Access may be possible from both sides of the bridge through shrub covered terrain		~ 5.7
Buffalo Trail	Access from NE side via a dirt road		~ 6.5 miles
U. S. 190	Access from service roads on either side of the bridges		~ 8.2 miles
Old Nolanville Road	Access from east side may be hampered by trees. Access from SW side may be possible via dirt road.		~ 9.4 miles
Levy Crossing	Access may be possible from the south side.		~ 11.4 miles
U. S. 190	Access possible from north or south side service roads.		~ 12.6
Paddy Hamilton Road	Access possible, but through heavily treed terrain.		~ 15.5 miles

Bridge/ Overpass	Accessibility	Waterway	Distance from HAAF
Route 93	Access possible, but through heavily treed terrain.	South Nolan Creek	~ 16.5 miles
Backstrom Crossing	Access from NE side via dirt road.		~ 17.3 miles
N Wheat Road	Access possible from south side via dirt road.	Nolan Creek	~ 20.4 miles
N Loop 121	Access possible, but through heavily treed terrain.	Nolan Creek	~ 21.7 miles

7.4.7 Other Cleanup Materials

Other cleanup materials are noted in Section 1.4, Response Equipment List and Location. Recovery and cleanup capability of the base is currently limited to small and some medium releases.

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8. SELF-INSPECTION, DRILLS/EXERCISES, AND RESPONSE TRAINING

8.1 INSTALLATION SELF-INSPECTION

Inspections of ASTs and secondary containment systems for Fort Hood and DESC containers are conducted on a periodic basis by facility personnel. Inspections of response equipment are conducted on a monthly basis. Checklists are used to ensure complete and consistent inspections. Records of inspections are recorded on inspection log sheets. Completed inspection checklists and logs are maintained at the facility for a minimum of five years. Facility inspection checklists are located in Appendix E, along with all other inspection forms and logs discussed in this section.

8.1.1 Tank Inspection

Section 15 of the Fort Hood SPCCP establishes the routine and periodic inspections and tests that must be performed on all oil storage and transfer equipment. Additionally, the Fort Hood Tank Management Plan also has additional requirements for routine monitoring of the installation's shop-fabricated oil storage tanks. If a leak or spill is identified, emergency response notification will occur according to the procedures outlined in Section 3.1. The manager of the AST location is informed of any deficiencies noted during the inspection. Personnel conducting inspections complete the inspection log (IRP Form E-3 – Tank Inspection Log) immediately after completing the inspection checklist. Records of tank inspections must be kept at least 5 years as per Section 1.8.1 of Appendix F to 40 CFR 112 by the responsible organization.

8.1.1.1 DFSP Tanks

The July 2007 DFSP Fort Hood Operation, Maintenance, Environmental, and Safety Plan describes the in-service operational preventive maintenance inspection, maintenance, and test schedules and procedures for the DFSP contractor. Overall responsibility for the inspections and tests of the DFSP bulk fuel storage and transfer equipment lies with the DFSP Terminal Manager. DFSP personnel use various forms to record required fuel equipment inspections, maintenance, and repairs. Copies of these forms, depending on the type of inspection and equipment maintained or repaired, are in the SPCCP and Appendix E of the DFSP Fort Hood Operation, Maintenance, Environmental, and Safety Plan. The appropriate supervisor or inspector completes and signs each form. The DFSP contractor uses a computer program, Express Maintenance, to track equipment and schedule and record inspections, maintenance, and repairs.

In support of the required inspections and tests for DFSP bulk fuel storage and transfer equipment, DESC programs and contracts for periodic API 653 and 570 inspections for the bulk fuel tanks and piping systems and engineering inspections and evaluations of other supporting systems and equipment. DESC manages and implements a centralized recurring inspection program for DoD bulk petroleum facilities. Types of inspections include API 653, 570, and 510 inspections and annual pipe hydrostatic tests, cathodic protection surveys, and tank gauging equipment inspections. Detailed information on aboveground tank periodic integrity testing is

included in the SPCCP and the DFSP's Performance Work Statement for the Operation and Maintenance of Fuel Facilities at Fort Hood.

DFSP contractor personnel conduct operational visual inspections of ASTs at least once per day. Responsible personnel also conduct monthly written external visual inspections of the field-constructed ASTs utilizing the Bulk Storage Tank Routine In-Service Inspection Checklist and weekly operational written external visual inspections of the shop-fabricated ASTs using the Fort Hood Tank Inspection Checklist. These forms are located in Appendix E of this IRP and Appendix C of the SPCCP. The tank inspection checklist presented in IRP Form E-2 – Tank Inspection Checklist has been included as guidance and can be used as an alternate to any Fort Hood tank inspection form during inspections.

8.1.1.2 Fort Hood Garrison Tanks

Garrison personnel conduct operational external visual inspections of ASTs at least once per day. Responsible personnel also conduct weekly operational written external visual inspections utilizing the Fort Hood Tank Inspection Checklist for shop-fabricated ASTs, located in Appendix E of this IRP. The tank inspection checklist presented in IRP Form E-2 – Tank Inspection Checklist has been included as guidance and can be used as an alternate to any Fort Hood tank inspection form during inspections.

As established in Section 15 of the SPCCP, the routine and formal inspection and testing procedures for Fort Hood's shop-fabricated ASTs and portable containers follow Steel Tank Institute **(STI)** SP001, Standard for the Inspection of Aboveground Storage Tanks.

8.1.2 Response Equipment Inspection

Monthly written inspections of response equipment are currently conducted at the six major sites of equipment storage: 1) the HAZMAT trailer located at the Central Fire Station (58th St. and Battalion Ave.); 2) the HAZMAT trailer located at Building 88001 (Spill Response Warehouse); and 3) the DPW-ENV P2 Services Building 1950; 4) the Hazardous Materials Trailer located at the DPW Maintenance Division General Support Shop; 5) the Hazardous materials Response Vehicle located at DOL Maintenance; and, 6) BLORA. In addition, monthly written inspections of the spill response equipment in the motor pools are conducted. IRP Form E-4 – Response Equipment Inspection Checklist, is utilized to document these inspections and to ensure a complete and consistent inspection is performed. Personnel utilize the Emergency Response Equipment List provided in Section 3.2 as a checklist of items to be inspected. Any discrepancies between the equipment list in Section 3.2 and the available response equipment are noted on the checklist. Records of these inspections are recorded on IRP Form E-5 – Response Equipment Inspection Log. Any discrepancies or deficiencies noted during the inspection are reported to the HAZMAT Commander, in the case of the two HAZMAT trailers, or the DPW-ENV P2 Manager, in the case of the DPW-ENV P2 Services Building. Personnel conducting inspections complete the inspection log immediately after completing the inspection checklist. Records of response equipment inspections must be kept for at least 5 years as per Section 1.8.1 of Appendix F to 40 CFR 112 at the responsible organization.

Any equipment noted to be missing or no longer in useable condition will be promptly replaced.

8.1.3 Secondary Containment Inspection

Visual inspection of secondary containment systems by facility personnel occurs at least once per day. A weekly written inspection by facility personnel is conducted. Records of these inspections are recorded on the secondary containment inspection checklist presented in IRP Form E-6 – Secondary Containment Inspection Checklist. This form has been included as guidance and can be used as an alternate to any Fort Hood tank inspection form during inspections and monitoring. Personnel conducting inspections complete the inspection log IRP Form E-7 – Secondary Containment Inspection Log. If a leak or spill is identified, emergency response notification will occur according to the procedures outlined in Section 3.1. The facility manager will be informed of any deficiencies noted during the inspection. Personnel conducting inspections complete the inspection log immediately after completing the inspection checklist.

8.2 INSTALLATION DRILLS/EXERCISES

Fort Hood's Installation Drills and Exercises have been written in accordance with 40 CFR 112.21 and the Oil Pollution Act of 1990 **(OPA90)** through incorporation of the National Preparedness for Response Exercise Program **(PREP)** Guidelines (USCG, 2002). The PREP guidelines were developed to provide a mechanism for compliance with the exercise requirements, while being economically feasible for the government and oil industry to adopt and sustain. The PREP clarifies the spill exercise expectations by defining the scope and objectives for each exercise requirement, providing documentation templates, and clarifying multi-year exercise requirements (triennial cycle). Plan holders are responsible for addressing any issues that arise from evaluation of the exercises and for making changes to the response plans necessary to ensure the highest level of preparedness. This document contains the PREP guidance specific to Fort Hood.

The focuses of the PREP guidelines are response plan validation, equipment and personnel readiness, command relationships, and 15 core components. The 15 core components (response phases), listed below, are the types of activities which should be addressed within the spill exercise program (the full version is located in USCG PREP, 2002):

1. Notifications: Test the notification procedures in the IRP.
2. Staff Mobilizations: Demonstrate the ability to assemble the spill response team described in the IRP.
3. Ability to Operate Within the Emergency Response Plan System Described in the IRP: Demonstrate the ability of the spill response organization to work within a unified command and operate within the frame work of the emergency response plan.
4. Source Control: Demonstrate the ability of the spill response team to control and stop the discharge at the source.
5. Assessment: Demonstrate the ability of the spill response team to provide an initial assessment of the discharge and provide continuing assessments of the effectiveness of the tactical operations.
6. Containment: Demonstrate the ability of the spill response team to contain the discharge at the source or in various locations for recovery operations.

7. Recovery: Demonstrate the ability of the spill response team to recover, mitigate, and remove the discharged product. Recovery includes mitigation and removal activities, e.g. dispersant use, ISB use, and bioremediation use.

8. Protection: Demonstrate the ability of the spill response team to protect environmentally and economically sensitive areas as identified in the IRP.

   8.1 Protective Booming: Demonstrate the ability to assemble and deploy sufficient resources to implement the proper protection strategies.

   8.2 Water Intake Protection: Demonstrate the ability to quickly identify water intakes and implement the proper protection procedures.

   8.3 Wildlife Recovery and Rehabilitation: Demonstrate the ability to quickly identify these resources at risk and implement the proper protection procedures.

   8.4 Population Protection: Demonstrate the ability to quickly identify health hazards associated with the discharged product and the populations at risk from these hazards, and to implement the proper protection procedures.

9. Disposal: Demonstrate the ability of the spill response team to dispose of the recovered material and contaminated debris.

10. Communications: Demonstrate the ability to establish an effective communications system for the spill response team.

    10.1 Internal Communications: Demonstrate the ability to establish an intra-organization communications system. This encompasses communications at the command post and between the command post and deployed resources.

    10.2 External Communications: Demonstrate the ability to establish communications both within the response team and other entities (e.g. Regional Response Team, media, regional or HQ agency offices, non-governmental organizations, etc.).

11. Transportation: Demonstrate the ability to provide effective multi-mode transportation for all elements of the response.

12. Personnel Support: Demonstrate the ability to provide the necessary support of all personnel associated with the response.

    12.1 Management: Demonstrate the ability to provide administrative management of all personnel involved in the response including the ability to move personnel into or out of the response team with established procedures.

    12.2 Emergency Procedures: Demonstrate the ability to provide emergency services for personnel involved in the response.

13. Equipment Maintenance and Support: Demonstrate the ability to maintain and support all equipment associated with the response.

    13.1 Response Equipment: Demonstrate the ability to provide effective maintenance and support for all response equipment.

13.2 Support Equipment: Demonstrate the ability to provide effective maintenance and support for all equipment that supports the response including communications equipment, transportation equipment, administrative equipment, etc.

14. Procurement: Demonstrate the ability to establish an effective procurement system.

14.1 Personnel: Demonstrate the ability to procure sufficient personnel to mount and sustain an organized response including insuring that all personnel have qualifications and training required for their position within the response organization.

14.2 Response Equipment: Demonstrate the ability to procure sufficient response equipment to mount and sustain an organized response.

14.3 Support Equipment: Demonstrate the ability to procure sufficient support equipment to support and sustain an organized response.

15. Documentation: Demonstrate the ability of the spill response team to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.

Fulfillment of the objectives of these core components is accomplished by implementing internal and external exercises. Internal exercises include personnel and resources within Fort Hood. The internal exercises are designed to examine the various elements of the response plan to ensure the plan is adequate to meet the needs of Fort Hood for spill response. All internal exercises should be logged and evaluated utilizing the forms provided in Appendix F.

Fort Hood may take credit for internal exercises conducted in response to actual spills. The spill response must be evaluated utilizing the designated evaluation forms (Appendix F). The DPW Environmental Division must determine which exercises were completed in the spill response. This determination should be based on whether the response effort would meet the objectives of the exercise as listed in the PREP guidelines. DPW Environmental Division must document the exercises completed and retain the evaluation forms as required.

Internal Exercises include:

- Qualified individual notification exercises,
- Emergency Procedures Exercises (optional),
- Spill management team tabletop exercises, and
- Equipment deployment exercises.

The second type of exercise, external exercises, extends beyond the internal focus of the plan holder's organization and involves other members of the response community. The external exercises are designed to examine the response plan and Fort Hood's ability to coordinate with the response community to conduct an effective response to a pollution incident.

External exercises include:

- Area exercises and
- Government-initiated unannounced exercises.

In order to effectively plan spill exercises and drills plan holders must coordinate their drills as early as possible, in order to avoid scheduling conflicts, ensure participation, and allow sufficient

time for drill planning efforts. Detailed descriptions of these exercises, schedules for their implementation, and documentation forms are provided in this training guidance.

8.2.1 Qualified Individual Notification Drills

The purpose of the qualified individual notification exercise is to ensure that the qualified individual (or designee, as designated in the IRP) is able to be reached in a spill response emergency and can carry out his duties. Contact by telephone, radio, message-pager, or facsimile must be made with the qualified individual, and confirmation must be received from him to satisfy the requirements of this exercise.

The qualified individual notification exercise is not intended to verify phone numbers, points of contact or the notification list contained in the plan. The DPW Environmental Division is expected to update the notification list periodically (recommended at least once every 6 months) as part of the normal course of conducting business.

The components of the exercise are outlined below:

Applicability:	Fort Hood
Frequency:	Quarterly
Initiating Authority:	Fort Hood DPW Environmental Division
Participating Elements:	Fort Hood personnel and qualified individual
Scope:	Exercise communications between Fort Hood personnel and qualified individual.
Objectives:	Contact must be made with a qualified individual or designee, as designated in the IRP.
Certification:	Self-Certification
Verification:	EPA
Record Retention:	5 years
Record Location:	Records kept at Fort Hood.
Evaluation:	Self-Evaluation
Credit:	Credit should be taken for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should also be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

An evaluation of actions taken during the qualified individual notification drill should be completed and certified utilizing the Qualified Individual Notification Drill Log (located in Appendix F of this IRP). Completed forms should be retained in a specified area by DPW Environmental Division.

8.2.2 Emergency Procedures Exercises

The purpose of the emergency procedures exercises is to ensure that personnel are capable of conducting the initial actions necessary to mitigate the effects of a spill. Facilities have the option of conducting emergency procedures exercises. For the purpose of the PREP, emergency

procedures for facilities are the procedures established at the facility to mitigate or prevent any discharge or a substantial threat of such discharge of oil resulting from facility operational activities associated with cargo transfers. This is an optional exercise that may be conducted unannounced to fulfill the internal unannounced exercise requirement.

Applicability:	Fort Hood
Frequency:	Quarterly
Initiating Authority:	Fort Hood DPW Environmental Division
Participating Elements:	Spill management team identified in the IRP.
Scope:	Exercise the emergency procedures for the installation to mitigate or prevent any discharge or a substantial threat of such discharge of oil resulting from facility operational activities associated with oil transfers.
Objectives:	Conduct an exercise of the installation's emergency procedures to ensure personnel knowledge of actions to be taken to mitigate a spill. This exercise may be a walk-through of the emergency procedures. The exercise should involve one or more of the sections of the emergency procedures for spill mitigation. For example, the exercise may involve a simulation of a response to an oil spill. The installation should ensure that spill mitigation procedures for all contingencies at the installation are addressed at some time.
Certification:	Self-Certification
Verification:	EPA
Record Retention:	5 years
Record Location:	Records kept at Fort Hood.
Evaluation:	Self-Evaluation
Credit:	Credit should be taken for this exercise when conducted in conjunction with other exercises, as long as all objectives are met, the exercise is evaluated and a proper record is generated. Credit should also be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

An evaluation of the actions taken during the emergency response procedures exercise should be recorded and certified utilizing the Emergency Response Procedures Form (located in Appendix F). Completed forms should be retained in a specified area by DPW Environmental Division.

8.2.3 Spill Management Team Tabletop Exercises

The spill management team conducts an annual tabletop exercise. The IRP is utilized in the exercise to ensure the spill management team is familiar with the plan and is able to use it effectively to conduct a spill response. This tabletop exercise also allows the spill management

team to review the SPCCP, IRP, and any other changes in spill management on the installation. At least one spill management team in a triennial cycle involves a worst-case discharge scenario. All other exercises involve a small discharge scenario (spill volume of 2,100 gallons or less). The components of the spill management team tabletop exercise are outlined below.

Applicability: Fort Hood Spill Management Team

Frequency: Annually

Initiating Authority: Fort Hood DPW Environmental Division

Participating Elements: Spill management team identified in the IRP.

Scope: Exercise the spill management team's organization, communication, and decision-making in managing a spill response.

Objectives: Exercise the spill management team in a review of:

- Knowledge of the response plan;
- Proper notifications;
- Communications systems;
- Coordination of internal organization personnel with responsibility for spill response;
- An annual review of the transition from a local team to a regional, national, or international team, as appropriate;
- Ability to coordinate spill response with the National Response System **(NRS)** infrastructure; and
- Ability to access information in Area Contingency Plan **(ACP)** for location of sensitive areas, resources available within the area, unique conditions of the area, etc. (this is only applicable if the ACP is available for the exercise).
- At least one spill management team tabletop exercise in a triennial cycle will involve simulation of a worst-case discharge scenario.

Certification: Self-Certification

Verification: EPA

Record Retention: 5 years

Record Location: Records kept at Fort Hood.

Evaluation: Self-Evaluation

Credit: Credit can be taken for three situations:

1. Planned and executed exercise.
2. When the exercise is conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated.
3. An actual response when the objectives are met, the response is evaluated, and a proper record is generated.

An evaluation of the actions taken during the tabletop exercise should be recorded and certified utilizing the Spill Management Team Tabletop Exercise Form (located in Appendix F). Completed forms should be retained in a specified area by DPW Environmental Division.

8.2.4 Equipment Deployment Exercises

Equipment deployment exercises are conducted to ensure that the personnel that would normally operate or supervise the operation of response equipment have the ability to properly deploy and operate that equipment. All personnel involved in equipment and deployment are involved in a training program. In addition, the exercise is conducted to ensure that response equipment is in good working order. All response equipment is involved in an inspection and maintenance program. The equipment to be deployed would be the equipment necessary to respond to an average most probable discharge (2,100 gallons or less) at Fort Hood. The components of the equipment deployment exercise are outlined below.

Applicability:	Fort Hood
Frequency:	Semiannually
Initiating Authority:	Fort Hood DPW Environmental Division
Participating Elements:	Fort Hood response personnel
Scope:	Deploy and operate facility owned and operated response equipment identified in the IRP. The equipment to be deployed would be the equipment necessary to respond to an average most probable discharge (2,100 gallons or less) at the facility. All of the Fort Hood personnel involved in equipment deployment operations must be included in a comprehensive training program. Also, all of the response equipment must be included in a comprehensive maintenance program. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. All inspection and maintenance must be documented by DPW Environmental Division.
Objectives:	Demonstrate ability of facility personnel to deploy and operate equipment. Ensure equipment is in proper working order.
Certification:	Self-Certification
Verification:	EPA
Record Retention:	5 years
Record Location:	Records kept at Fort Hood.
Evaluation:	Self-Evaluation
Credit:	Credit should be taken for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are

met, the response is evaluated, and a proper record is generated.

An evaluation of the actions taken during the equipment deployment exercise should be recorded and certified utilizing the Equipment Deployment Exercise Form (located in Appendix F). Completed forms should be retained in a specified area by DPW Environmental Division.

8.2.5 Unannounced Exercises

Unannounced exercises include both internal unannounced exercises and external government-initiated unannounced exercises.

8.2.6 Internal Unannounced Exercises

An unannounced exercise occurs so that the exercise participants do not have prior knowledge of the exercise, as would be the situation in an actual spill response.

Annually, Fort Hood conducts one of the following exercises unannounced:

- Spill Management Team Tabletop Exercise,
- Emergency Procedures Exercises, or
- Equipment Deployment Exercise.

Credit is taken for response to an actual spill, if the response is evaluated and documented. An evaluation of the actions taken during the unannounced exercise should be recorded and certified utilizing the designated form for the type of exercise completed located in Appendix I of this plan. Completed forms should be retained in a specified area by DPW Environmental Division.

8.2.7 Government-Initiated Unannounced Exercises

Government-initiated unannounced exercises are external exercises designed to give the agency with primary regulatory oversight over a particular industry the opportunity to evaluate, on a random basis, the response preparedness of that industry. Fort Hood is an EPA-regulated facility. For EPA-regulated facilities, government-initiated unannounced exercises are limited to 10% of the plan holders per EPA region per year. Fort Hood is required to participate in a government-initiated unannounced exercise unless specific conditions exist that may result in safety hazards. The cost of the unannounced exercise is borne by the IRP holder. The components of the government-initiated unannounced exercise are outlined below.

Applicability: Fort Hood and other EPA-regulated IRP holders within the area.

Frequency: Triennially, if successfully completed. A facility deemed by the CG/EPA not to have successfully completed the exercise may be required to participate in another government initiated unannounced exercise at the discretion of the exercising agency. (Plan holders who have successfully completed a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise.

Initiating Authority: EPA

Participating Elements: EPA-regulated IRP holders.

Scope:

- Unannounced exercises are limited to a maximum of 10% of IRP holders per EPA Region per year.

- Exercises are limited to approximately 4 hours in duration.
- Exercises would involve response to an average most probable discharge scenario (2,100 gallons outside secondary containment and discharged into or on navigable waters and adjoining shorelines).
- Exercise would involve equipment deployment to respond to spill scenario.

Objectives: Conduct proper notifications to respond to unannounced scenario of an average most probable discharge.

Demonstrate that the response is:

- Timely;
- Conducted with an adequate amount of equipment for the scenario; and
- Properly conducted.

Certification: EPA

Verification: EPA

Record Retention: 5 years

Record Location: Records kept at Fort Hood.

Evaluation: Conducted by initiating authority

Credit: Credit may be granted by the EPA for an actual spill response when the PREP objectives are met, the response is evaluated by the EPA and a proper record is generated. Credit taken for notification and equipment deployment exercises, if criteria for those exercises are met, the response is evaluated by DPW Environmental Division and a proper record is generated.

A copy of the evaluation and certification, conducted by the initiating authority (EPA), should be kept on file by DPW Environmental Division.

8.2.8 Area Exercises

The purpose of the area exercise is to exercise the entire response community in a particular area. An area is defined as that geographic area for which a separate and distinct ACP has been prepared, as described in OPA. The response community includes the federal, state, and local government and the installation. The area response exercises are designed to exercise the government (e.g., EPA) and installation interface for spill response. The area exercises do not need to be large scale efforts. For example, the worst case discharge does not need to be the scenario exercised. Equipment deployment should be adequate to address the scenario selected.

The exercise design team is comprised of representatives from federal, state, local government, and the installation. The lead plan holder is the organization (government or industry) that holds the primary response plan that is exercised in the area exercise. The lead plan holder would have the final word on designing the scope and scenario for the exercise. The primary purpose of the area exercise is to activate and observe the response infrastructure in the area, and the ability of

the entire response community to effectively conduct a spill response. A National Scheduling Coordinating Committee **(NSCC)** has been established for scheduling the area exercises. The components of the area exercise are outlined below.

Applicability: Area response community.

Frequency: Triennially for each area.

Initiating Authority: U.S. Coast Guard, EPA, and industry

Participating Elements: Appropriate Federal, state, and local government, and industry and other members of the response community.

Scope: Area exercises will exercise the Area Response Community.

Objectives:

- Exercise the ACP, along with selected industry response plans.
- Exercise the unified command with the appropriate participants.
- Exercise the area and industry spill management teams.
- Deploy adequate response equipment for the exercise scenario. At a minimum, the scenario must involve exercise of Tier I Worst Case discharge capability.

Format: Total annual exercises would consist of the following:

- 6 government-led exercises; and
- 14 industry-led

Total = 20 Area Exercises Per Year

- Area exercises should be *approximately* 8-12 hours in duration.
- Exercise scenario to be developed by the Exercise Design Team.
- To simulate realism, the exercise should be conducted in the command post that would be utilized for a spill response, whenever possible.
- Exercise may be in real or limited compressed time, and may start at any point during an incident, as determined by the Exercise Design Team. Flexibility should be allowed, to ensure the exercise objectives are met.
- Lessons learned from the exercise should be incorporated into the PREP Lessons Learned System, whenever possible.

Certification: The On-Scene Coordinator will certify the completion of the area exercise. In certifying the area exercise, the On-Scene Coordinator will consider the following:

- The area exercise was conducted.
- The Area exercise met the objectives outlined in the PREP guidelines.
- The area response community was exercised for spill response preparedness.

Fort Hood shall take credit for all of the exercises completed during the area exercise. These exercises shall be self-certified by Fort Hood.

Verification:	Verification to be done by the NSCC.
Record Retention:	5 years
Record Location:	Records kept with the Federal On-Scene Coordinator
Evaluation:	Joint Evaluation Team to be comprised of the federal government (EPA), state, and industry.
Scheduling:	Scheduling of area exercises will be done by the NSCC, utilizing input from the On-Scene Coordinator, Area Committee, and Regional Response Team, in consultation with the industry. A 3-year schedule of PREP Area exercises will be published in the federal register as a public forum for government and industry to the scheduling process.

8.2.9 Triennial Exercise of the Facility Response Plan

Every three years all components of the IRP are exercised. The 15 components of the exercise program listed in Section 8.2, of this guidance, are included in this triennial exercise program requirement. In the triennial cycle, the following internal exercises are conducted:

- 12 qualified individual notification exercises;
- 3 spill management team tabletop exercises -- one involves a worst case discharge scenario;
- 3 unannounced exercises – any of the exercises except the qualified individual notification exercise;
- 6 equipment deployment exercises
- Triennial exercise of the entire response plan – each component of the IRP is exercised at least once in the triennial cycle.

8.3 RESPONSE TRAINING

Fort Hood is developing a training program for installation response personnel in accordance with the United States Coast Guard's training elements contained in the Training Reference for Oil Spill Response (USCG 2002b). This training program is directed at qualified individuals, spill management team members, and installation personnel to ensure that adequate knowledge and training is obtained by every individual who may be required to respond to a spill. Training elements for these three groups are outlined below.

Training Elements for Qualified Individual(s):

Demonstrate knowledge of the following:

1) EPA Region in which the facility is located.

2) Notification procedures and requirements for internal response organizations; federal and state agencies; and contracted OSROs and the information required for those organizations.

3) Communication system used for the notifications.

4) Information on the products transferred, stored, or used by the facility, including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, spill and fire fighting procedures.

5) Procedures the facility personnel may use to mitigate or prevent any discharge or a substantial threat of a discharge of oil resulting from facility operational activities associated with material transfer, storage, or use.

6) Facility personnel responsibilities and procedures for use of facility equipment which may be carried to mitigate an oil discharge.

7) Operational capabilities of the contracted OSROs to respond to the following:

- Average most probable discharge (small discharge);
- Maximum most probable discharge (medium discharge); and
- Worst case discharge.

8) Responsibilities and authorities of the qualified individual as described in the IRP.

9) The organizational structure that will be used to manage the response actions, including:

- Command and control;
- Public information;
- Safety;
- Liaison with other government agencies;
- Spill response operations;
- Planning;
- Logistics support; and
- Finance.

10) The responsibilities and duties of each oil spill management team member within the organizational structure.

11) The drill and exercise program to meet federal and state regulations as required under OPA.

12) The role of the qualified individual in the post discharge review of the plan to evaluate and validate its effectiveness.

13) ACP for the area in which the installation is located.

14) The National Contingency Plan.

15) Roles and responsibilities of federal and state agencies in pollution response.

16) Available response resources identified in response plan.

17) Contracting and ordering procedures to acquire oil spill removal organization resources identified in the response plan.

18) Occupational Safety and Health Administration (OSHA) requirements for worker health and safety (29 CFR 1910.120) including respiratory protection.

19) Incident Command System/Unified Command System.

20) Public affairs.

21) Crisis management.

22) Procedures for obtaining approval for dispersant use or in-situ burning of the spill.

23) Oil spill trajectory analyses.

24) Sensitive biological areas.

Training Elements for Spill Management Team Members:

Demonstrate knowledge of the following:

1) EPA Region in which the facility is located.

2) Notification procedures and requirements for internal response organizations, federal and state agencies; and contracted oil spill removal organizations and information required for those organizations.

3) Communication systems used for the notifications.

4) Information on the products transferred, stored, or used by the installation, including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, spill and firefighting procedures.

5) Installation personnel responsibilities and procedures for use of facility equipment which may be carried to mitigate an oil discharge.

6) The operational capabilities of the contracted OSROs to respond to the following:

- Average most probable discharge (small discharge);
- Maximum most probable discharge (medium discharge); and
- Worst case discharge.

7) Responsibilities and authority of the qualified individual as described in the IRP.

8) The organizational structure that will be used to manage the response actions, including

- Command and control;
- Public information;
- Safety;
- Liaison with other government agencies;
- Spill response operations;
- Planning;
- Logistics support; and
- Finance.

9) The responsibilities and duties of the oil spill management team member within the organizational structure, in accordance with designated job responsibilities.

10) The drill and exercise program to meet the federal and state regulations as required by OPA.

11) Procedures for the post discharge review of the plan to evaluate and validate its effectiveness.

12) The ACP for the area in which the facility is located.

13) The National Contingency Plan.

14) Roles and responsibilities of federal and state agencies in pollution response.

15) Available response resources.

16) Contracting and ordering procedures to acquire OSRO resources, in accordance with designated job responsibilities.

17) Basic information on spill operations and on spill clean-up technology including:

- Oil containment;
- Oil recovery methods and devices;
- Equipment limitations and uses;
- Spill trajectory analysis;
- Use of dispersants, in–situ burning, bioremediation; and
- Waste storage and disposal considerations.

18) Hazard recognition and evaluation.

19) Site safety and security procedures.

20) OSHA requirements for worker health and safety (29 CFR 1910.120) including respiratory protection.

21) Incident Command System and Unified Command System.

22) Public affairs, as applicable to designated job responsibilities.

23) Crisis management, as applicable to designated job responsibilities.

24) Personnel management, as applicable to designated job responsibilities.

25) Sensitive biological areas, as applicable to designated job responsibilities.

26) Procedures for directing the deployment and use of spill response equipment, as applicable to designated job responsibilities.

Training Elements for Installation Personnel:

Demonstrate knowledge of the following:

1) EPA Region in which the facility is located.

2) Notification procedures and requirements for internal response organizations, federal and state agencies; and contracted OSROs, and the information required for those organizations.

3) Communication system used for the notifications.

4) Information on the products stored, used, or transferred by the facility, including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, and spill and firefighting procedures.

5) Installation personnel responsibilities and procedures for use of equipment which may be available to mitigate or prevent an oil discharge.

6) Specific procedures to shut down affected operations.

7) Procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios:

- Tank overfill;
- Tank rupture;
- Piping or pipeline rupture;
- Piping or pipeline leak, both under pressure and not under pressure, if applicable;
- Explosion or fire;
- Equipment failure; and
- Failure of secondary containment system.

8) The operational capabilities of the contracted OSROs to respond to the:

- Average most probable discharge (small discharge);
- Maximum most probable discharge (medium discharge); and
- Worst case discharge.

9) Name of the qualified individual and how to contact him or her.

10) General responsibilities and authorities of the qualified individual as described in the facility response plan.

11) The organizational structure that will be used to manage the response actions, including:

- Command and control;
- Public information;
- Safety;
- Liaison with other government agencies;
- Spill response operations;
- Planning;
- Logistics support; and
- Finance.

12) The drill and exercise program to meet the federal requirements.

13) The ACP for the area in which the installation is located.

14) The National Contingency Plan.

15) Roles and responsibilities of federal and state agencies in pollution response.

16) OSHA requirements for worker health and safety (29 CFR 1910.120) including respiratory protection, if applicable.

8.3.1 Personnel Response Training Logs

Records of training for response personnel are maintained on IRP Form 8-1 – Personnel Response Training Log.

8.3.2 Discharge Prevention Meeting Logs

Response personnel participate in discharge prevention meetings every six months. Records of personnel attending these meetings and the issues raised are maintained on IRP Form 8-2 – Discharge Prevention Meeting Log.

IRP FORM 8-1. PERSONNEL RESPONSE TRAINING LOG

Name	Response training/date and number of hours	Prevention training/date and number of hours

IRP FORM 8-2. DISCHARGE PREVENTION MEETING LOG

Date:_____

Attendees:_____

_____

_____

_____

_____

_____

_____

_____

_____

Subject/issue identified	Required action	Implementation date

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9. DIAGRAMS

Diagrams required by 40 CFR 112.20 are located in Section 1.9 of this IRP. The following is a list of the additional Site Survey Figures presented in SPCCP and found in Appendix D of this plan:

Figure	Site
1	AAFES Main Service Station
2	AAFES Picnic Palace and Building 339
3	Hood Road Shoppette
4	Clear Creek Shoppette
5	Comanche Shoppette (WFH)
6	WFH Service Station and Building 70017
7	Warrior Way Shoppette
8	Motor Pools 705, 707, 6972, 6975, 6978
9	16th SIG BN Motor Pool; 53rd QM BN Motor Pool; TOPO Unit; 53rd QM BN Motor Pool
10	MP 4615, 4625
11	Aircraft Maintenance Facilities 6940 and 7007
12	Motor Pools 6950, 6951, 6952, 6953
13	Aircraft Maintenance Facility 7021, 7022, 7052
14	AOP/POL Facility (Buildings 7090, 7086, 7082, 7080, 7084, 7088, 7054, 7046, 7043, 7045, and 7012)
15	Motor Pools 9127, 9513, 9535, 9529
16	Motor Pools 9553, 9563, 9576
17	Motor Pools 11050, 9003, 9112, 9122
18	Motor Pools 11006, 11029, 13009, and 13029
19	704th MSB Motor Pool; 3-66th AR BN Motor Pool; HHC 1 BDE (4ID) Motor Pool
20	2nd CHEM Battalion
21	Motor Pools 15011, 15028, 15060, 17001, and 17030
22	Motor Pools 17047 and 19012
23	TMP
24	NEFF
25	Motor Pools 25020, 26040, 26027, 26041, and 30015
26	Motor Pools 30017, 30033, and 32002
27	215th FSB Motor Pool; 115th FSB Motor Pool
28	Motor Pools 38003, 38014, 35023, and 35014
29	Motor Pools 38023, 38033, 38053, and 38063
30	Transportation Motor Pools 40015, 40001M, 4027M, 40008, 4115, and 4163
31	Motor Pool 44012
32	Motor Pools 90023, 90033 and 90034
33	Motor Pool 90052
34	Motor Pools 90094, 90098, and 90135
35	Motor Pools 90141and 90139
36	Motor Pools 91039 and 91058
37	Sportsman's Club and Buildings 22012 and 22021
38	Officer's Club (Building 5764) and Building 5764
39	Theodore Roosevelt Dining Facility
40	A&W Burgers

41 Raider Dining Facility; DISCOM Dining Facility
42 Popeyes and Burger King
43 Division Support Dining Facility
44 Darnell Hospital DFAC and Buildings 6031 and 36014
45 Burger King
46 SFH Dining Facility
47 Phantom Warrior Bowling and Building 49022
48 Burger King and Buildings 4918, 4932 and 5001
49 Clear Creek Golf Course Facility
50 NFH Dining Facility 2 and Buildings 56420 and 56519
51 Buildings 56447, 56471 and 56508
52 Divarty Dining Facility
53 Coulters BBQ
54 SFH Dining Facility and Buildings 91010 and 91012
55 DPW Classification Unit
56 DPW JP-8 Recycling Facility and Buildings 1950 and 1954
57 DPW Motor Pool
58 BLORA Facility
59 Darnall ACH and Buildings 36001, 36007, 36008 and 36009
60 Clear Creek Golf Course
61 Range Control
62 Fort Hood Type I MSW Landfill
63 North Fort Hood Fire Station
64 NFH Wash Facility
65 NFH Shorthorn Airfield
66 DOL Maintenance Division (DS/GS Maintenance)
67 Buildings 89010 and 89100
68 Railhead
69 WFH Naval Air Building 90047
70 Fort Hood Fire Station #2
71 Ground Approach Radar Facility (RGAAF)
72 Building 94010 (TSC)
73A Bulk Fuel Storage Facility
73B Bulk Fuel Storage Facility and Retail Fuel Dispensing Facility
74 RGAAF Alert Farm and South Ramp
75 Robert Gray AAF RRF
76 HAAF RRF
77 Buildings 13, 111, 1001 and 2200
78 Building 4291
79 Building 8001
80 Building 32002
81 Building 56718
82 Building 56767
83 Building 90145
84 Building 7080
85 Transformer and Generator Locations A
86 Transformer and Generator Locations B
87 Transformer and Generator Locations C

88 Building 41018 and Transformer and Generator Locations D
89 Transformer and Generator Locations E
90 Transformer and Generator Locations F
91 Transformer and Generator Locations G
92 Transformer and Generator Locations H and Buildings 23025, 23202 and 2250
93 Transformer and Generator Locations I
94 Transformer and Generator Locations J
95 Transformer and Generator Locations K
96 Transformer and Generator Locations M
97 Transformer and Generator Locations M
98 Transformer and Generator Locations N
99 Transformer and Generator Locations O
100 Transformer and Generator Locations P
101 Transformer and Generator Locations Q
102 Transformer and Generator Locations R
103 Transformer and Generator Locations S
104 Transformer and Generator Locations T
105 Transformer and Generator Locations U
106 Transformer and Generator Locations V
107 Buildings 56325 and 57003
108 Buildings 7037 and 8680
109 Buildings 40054 and 40060
110 Building 56181
111 Building 56240
112 Building 56271
113 Building 90500
114 Building 48830
115 Building 56175
116 Buildings 90029 and 90075
117 Building 69012
118 Building 90155
119 Building 7081

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10. SECURITY

Fort Hood is a secure installation owned and operated by the US Army. Access to ASTs and the motor pools are controlled by chain-link fencing with anti-climb arms and barbed wire. Access to all bulk and major oil storage and transfer areas is controlled through a single gate or other point of entry where check-in is required. Guards are present at airfields and attendants are on-duty at retail fuel service stations. Gates to facilities are locked at night or when not in use. Facilities with AST's are illuminated at night by security lighting to assist military police to detect or prevent unauthorized access and vandalism.

As appropriate, facility security measures include:

* Emergency cut-off locations (automatic or manual valves)
* Enclosures (e.g., fencing, barbed wire, anti-climb arms, etc.)
* Access control (gates, single point entry, etc.)
* Secured pump controls
* Military police and security Guards, with day and night patrols
* Lighting (general lighting and security lighting where needed)
* Valve and pump locks
* Pipeline connection caps

10.1 SECURITY FORCES

The Fort Hood Military Police provides 24-hour surveillance and protection of all facilities and personnel at the installation. They provide controlled access at all entrances, perform scheduled and unscheduled mobile patrols, and maintain a limited reaction force capability to respond to emergency situations at the installation. There are no guards specifically detailed for security of the bulk and major fuel storage and transfer areas; however, all sensitive facilities (including tank storage locations) and areas on the installation are included in the regular and unscheduled security patrols. Checks involve looking for intruders and monitoring the operational status of equipment and evidence of petroleum leaks or spills. The Fort Hood security plan also provides for additional security measures during emergencies or periods of increased threat. In case of a fire or spill emergency the Security Police serve as the Security/Dispatch for the Base Fire Department.

10.2 ENTRY CONTROL OF PERSONNEL AND VEHICLES

Fort Hood is a controlled access facility restricted by fences, gates, and security patrols. The facility is surrounded by a ten-foot chain-link fence. The fence is inspected by base security personnel. Access is controlled with the use of manned stations and barricades at all of the base gates. Overall access to the base is restricted to active military and civil service personnel, authorized base contractors, families of active military personnel, retired military personnel and their families, and authorized visitors. Visitors must present satisfactory proof of identification and a statement of purpose for their visit prior to the issuance of a temporary pass for access to the facility.

10.3 BULK FUEL STORAGE AND TRANSFER FACILITIES

The BFSF, RGAAF Alert Tank Farm, and the tank farm's Alert Refueler Parking are enclosed by security fences and are Controlled Security Areas. The RGAAF and HAAF, and therefore the bulk tank farms along with the hydrants at these airfields, are also controlled access fenced security areas that are under routine surveillance by security personnel. All gates are locked whenever bulk fuel storage and transfer facilities are unmanned. The unmanned retail dispensing facility at the BFSF is open 24-hours daily. A security fence also surrounds this facility, and its entrance gates can be locked. Although the retail dispensing facility is a self service operation it employs an electronic key system to control and authorize operation of the dispensers.

Fuel operations personnel make routine checks of the facilities and systems during transfer operations. During periods of non-operation, pump areas and all valves that would allow direct outward flow from the AST are securely locked in the close position. Pipeline connections are always capped or blank flanged when not in operation and inactive/terminated lines are blocked to prevent accidental or malicious spills.

Drainage valves for the bulk AST dikes are locked in the closed position.

10.4 NON-BULK FUEL STORAGE FACILITIES

Fort Hood contains several different types of non-bulk facilities. All contain site specific security measures (See Appendix D for site specific security descriptions). Army and Air Force Exchange Service **(AAFES)** retail fuel service stations are manned by trained staff while operational. All fuel storage ASTs at AAFES service stations are enclosed by a locked, security fence. All gas pumps have automatic shutoff devices and are locked when not the service station is closed.

All Motor Pools are enclosed by chain-link fencing with anti-climb arms and barbed wire. There is typically a single point manned entrance at all motor pools. AST fill pipe sumps are locked when not the AST is not in use.

10.5 LIGHTING

Fort Hood is well supported by lighting throughout the installation. The fuel storage and transfer areas are patrolled routinely as part of the general security plan. The POL storage and fuel transfer and dispensing facilities have sufficient lighting to facilitate detection of spills and deter vandalism during hours of darkness.

11. PLANNING DISTANCE CALCULATIONS

The following calculations are based upon the processes, requirements, and formulae found in Section 2 of Attachment C-III to Appendix C to 40 CFR 112 for oil transport on moving navigable waters.

11.1 OIL TRANSPORT OVER LAND

As per Section 5 of Attachment C-III in Appendix C to 40 CFR 112, facility owners must evaluate the potential for portions of a worst-case discharge to be transported over land to navigable waters of the United States.

For Fort Hood, the spill pathways outlined in Section 4.2 identified several waterways and lakes. For the BFSF and RGAAF, these spill pathways include an unnamed tributary to Clear Creek, Clear Creek, House Creek, Cowhouse Creek, and Belton Lake. For the RGAF, these spill pathways include an unnamed tributary to Reese Creek, Reese Creek, Lampasas River, and Stillhouse Hollow Lake. For the HAAF, these spill pathways include an unnamed tributary to South Nolan Creek, Nolan Creek, Leon River, Lampasas River, and Little River.

11.2 VELOCITY FORMULA

The formula to calculate the planning distance for oil transport on moving navigable waters is:

D = V x T x C, where

D = the distance downstream from a facility within which fish and wildlife and sensitive environments could be injured.

V = the velocity of the river (in ft/sec) as determined by Chezy-Manning's equation.

T = the time interval specified in Table 3

C = constant conversion factor: 0.68 sec-mile/hr-ft

11.3 CHEZY-MANNING EQUATION

The Chezy-Manning Equation is used to determine velocity. It should be noted that the velocity that will be computed would approximate the velocity of the watercourse for high flows at or near flood stage. The formula is:

$\mathbf{V = 1.5/N \times R^{2/3} \times S^{1/2}}$, where

N = Manning's Roughness Coefficient from Table IRP 11-1.

R = the hydraulic radius, which can be approximated for parabolic channels by multiplying the average mid-channel depth of the river (in feet) by 0.667.

S = the average slope of the river (unitless), which was calculated from the elevation features on Google Earth by subtracting the closest downstream elevation from the closest discharge elevation and dividing this by the distance between each point.

IRP TABLE 11-1. MANNING'S ROUGHNESS COEFFICIENT

Manning's Roughness Coefficient for Natural Streams	
Stream Description	**Roughness Coefficient (N)**
Minor streams (Top width < 100 ft.)	
Clean:	
Straight	0.03
Winding	0.04
Sluggish (weedy, deep pools)	
No trees or brush	0.06
Trees and/or brush	0.10
Major Streams (Top width > 100 ft.)	
Regular section:	
(No boulders/brush)	0.035
Irregular section:	
(Boulders or brush)	0.05

11.4 VELOCITY CALCULATIONS

Velocity calculations are made for leg of the spill pathways for each major discharge site on Fort Hood (BFSF, RGAF, RGAAF, and HAAF). These waters would be affected by a worst-case discharge from Fort Hood.

11.4.1 BFSF

For the BFSF, these spill pathways include an unnamed tributary to Clear Creek, Clear Creek, House Creek, Cowhouse Creek, and Belton Lake. The distance for each of these legs is shown below

BFSF Discharge Information					
Route	**Distance (Miles)**	**Starting Elevation**	**Ending Elevation**	**Slope (S) [1]**	**Roughness Coefficient (N) [2]**
From AST 111 to Clear Creek via a seasonally-dry unnamed tributary	1.7	960	840	0.0134	0.10
From Clear Creek to House Creek.	4.7	840	736	0.0042	0.05
From House Creek to Cowhouse Creek	4.6	736	656	0.0033	0.05
From Cowhouse Creek to Belton Lake	13.2	656	594	0.0009	0.05
Total Distance	**24.2**				

Notes: 1. Slope = (Starting Elevation – Ending Elevation)/Distance (in feet).
2. Roughness Coefficient = estimated average from Table IRP 11-1 for the route.

For the hydraulic radius, the following information was obtained.

Hydraulic Radius		
Route	**Estimated average mid-channel depth**	**Hydraulic radius (R) [1]**
From AST 111 to Clear Creek via a seasonally-dry unnamed tributary	1.5	1.00
From Clear Creek to House Creek.	2.0	1.33
From House Creek to Cowhouse Creek	2.5	1.67
From Cowhouse Creek to Belton Lake	3.0	2.00
Note: 1. Hydraulic radius is approximated by multiplying mid-channel depth by 0.667.		

The velocity for each leg is computed as shown below:

BFSF Discharge Velocity				
Route	**N**	**R**	**S**	**V [1]**
From AST 111 to Clear Creek via a seasonally-dry unnamed tributary	0.10	1.00	0.0134	1.736
From Clear Creek to House Creek.	0.05	1.33	0.0042	2.352
From House Creek to Cowhouse Creek	0.05	1.67	0.0033	2.426
From Cowhouse Creek to Belton Lake	0.05	2.00	0.0009	1.429
Note: 1. Velocity (V) = $1.5/N \times R^{2/3} \times S^{1/2}$ in feet/second				

Planning Distance Calculations

Per paragraph 1.6 in Attachment C-III to Appendix C of 40 CFR 112, once it has been determined that the facility could cause substantial harm, the owner shall reference the response times discussed in Appendix E of 40 CFR 112. The response time for a Tier 1 response is 12 hours. Therefore, it is necessary to determine how long the spill will travel in this time.

BFSF Discharge Time			
Route	**Distance**	**V**	**Time [1]**
From AST 111 to Clear Creek via a seasonally-dry unnamed tributary	8,976 feet	1.736	1.44 hours
From Clear Creek to House Creek.	24,816 feet	2.352	2.93 hours
From House Creek to Cowhouse Creek	24,288 feet	2.426	2.78 hours
From Cowhouse Creek to Belton Lake	69,696 feet	1.429	13.55 hours
		Total time to reach Belton Lake	**20.7**
Note: 1. Time (hours) = [Distance (feet) / Velocity (V) feet/second] / 3,600 seconds/hour			

The spill will reach the confluence of House Creek and Cowhouse Creek in approximately 7.2 hours. Since resources will be arriving in 12 hours, the spill will travel on Cowhouse Creek for approximately 4.8 hours. This means it will travel approximately 4.7 miles on Cowhouse Creek.

1.429 feet/second X 4.8 hours X 0.68 (conversion factor) = **4.7 miles**

This point on Cowhouse Creek is still within the boundary of Fort Hood.

11.4.2 RGAAF Alert Tank Farm

For the RGAF, these spill pathways include an unnamed tributary to Reese Creek, Reese Creek, Lampasas River, and Stillhouse Hollow Lake. The distance for each of these legs is shown below

RGAAF Alert Tank Farm Discharge Information					
Route	**Distance (Miles)**	**Starting Elevation**	**Ending Elevation**	**Slope (S) [1]**	**Roughness Coefficient (N) [2]**
From AST 2 to Reese Creek via a seasonally-dry unnamed tributary	0.05	963	956	0.0255	0.10
From unnamed tributary to Reese Creek.	2.0	956	876	0.0076	0.05
From Reese Creek to Lampasas River	7.2	876	685	0.0050	0.05
From Lampasas River to Stillhouse Hollow Lake	18.7	685	622	0.0006	0.04
Total Distance	**27.95**				
Notes: 1. Slope = (Starting Elevation – Ending Elevation)/Distance (in feet). 2. Roughness Coefficient = estimated average from Table IRP 11-1 for the route.					

For the hydraulic radius, the following information was obtained.

Hydraulic Radius		
Route	**Estimated average mid-channel depth**	**Hydraulic radius (R) [1]**
From AST 2 to Reese Creek via a seasonally-dry unnamed tributary	1.0	1.00
From unnamed tributary to Reese Creek.	2.0	1.33
From Reese Creek to Lampasas River	2.5	1.67
From Lampasas River to Stillhouse Hollow Lake	4.0	2.67
Note: 1. Hydraulic radius is approximated by multiplying mid-channel depth by 0.667.		

The velocity for each leg is computed as shown below:

RGAAF Alert Tank Farm Discharge Velocity				
Route	**N**	**R**	**S**	**V [1]**
From AST 2 to Reese Creek via a seasonally-dry unnamed tributary	0.10	1.00	0.0255	2.395
From unnamed tributary to Reese Creek.	0.05	1.33	0.0076	3.163
From Reese Creek to Lampasas River	0.05	1.67	0.0050	2.986
From Lampasas River to Stillhouse Hollow Lake	0.04	2.67	0.0006	1.768
Note: 1. Velocity (V) = $1.5/N \times R^{2/3} \times S^{1/2}$ in feet/second				

Planning Distance Calculations

Per paragraph 1.6 in Attachment C-III to Appendix C of 40 CFR 112, once it has been determined that the facility could cause substantial harm, the owner shall reference the response times discussed in Appendix E of 40 CFR 112. The response time for a Tier 1 response is 12 hours. Therefore, it is necessary to determine how long the spill will travel in this time.

RGAAF Alert Tank Farm Discharge Time

Route	Distance	V	Time [1]
From AST 2 to Reese Creek via a seasonally-dry unnamed tributary	275 feet	2.395	2 min
From unnamed tributary to Reese Creek.	10,560 feet	3.163	0.93 hours
From Reese Creek to Lampasas River	36,960 feet	2.986	3.44 hours
From Lampasas River to Stillhouse Hollow Lake	98,736 feet	1.768	15.51 hours
Total time to reach Stillhouse Hollow Lake			**19.88**

Note: 1. Time (hours) = [Distance (feet) / Velocity (V) feet/second] / 3,600 seconds/hour

The spill will reach the confluence of Reese Creek and Lampasas River in approximately 4.4 hours. Since resources will be arriving in 12 hours, the spill will travel on Lampasas River for approximately 7.6 hours. This means it will travel approximately 9.1 miles.

1.768 feet/second X 7.6 hours X 0.68 (conversion factor) = **9.1 miles**

The discharge leaves the boundary of Fort Hood approximately 5.6 miles downstream from the tank.

11.4.3 RGAAF RRF

For the RGAAF, these spill pathways include an unnamed tributary to Clear Creek, Clear Creek, House Creek, Cowhouse Creek, and Belton Lake. The distance for each of these legs is shown below

RGAAF RRF Discharge Information

Route	Distance (Miles)	Starting Elevation	Ending Elevation	Slope (S) [1]	Roughness Coefficient (N) [2]
From AST 1 to Clear Creek via a seasonally-dry unnamed tributary	1.1	1020	942	0.0134	0.10
From Clear Creek to House Creek.	7.7	942	736	0.005	0.05
From House Creek to Cowhouse Creek	4.6	736	656	0.0033	0.05
From Cowhouse Creek to Belton Lake	13.2	656	594	0.0009	0.05
Total Distance	**26.6**				

Notes: 1. Slope = (Starting Elevation – Ending Elevation)/Distance (in feet).
2. Roughness Coefficient = estimated average from Table IRP 11-1 for the route.

For the hydraulic radius, the following information was obtained.

Hydraulic Radius

Route	Estimated average mid-channel depth	Hydraulic radius (R) [1]
From AST 1 to Clear Creek via a seasonally-dry unnamed tributary	1.5	1.00
From Clear Creek to House Creek.	2.0	1.33
From House Creek to Cowhouse Creek	2.5	1.67
From Cowhouse Creek to Belton Lake	3.0	2.00
Note: 1. Hydraulic radius is approximated by multiplying mid-channel depth by 0.667.		

The velocity for each leg is computed as shown below:

RGAAF Discharge Velocity				
Route	**N**	**R**	**S**	**V [1]**
From AST 1 to Clear Creek via a seasonally-dry unnamed tributary	0.10	1.00	0.0134	1.736
From Clear Creek to House Creek.	0.05	1.33	0.0042	2.352
From House Creek to Cowhouse Creek	0.05	1.67	0.0033	2.426
From Cowhouse Creek to Belton Lake	0.05	2.00	0.0009	1.429
Note: 1. Velocity (V) = $1.5/N \times R^{2/3} \times S^{1/2}$ in feet/second				

Planning Distance Calculations

Per paragraph 1.6 in Attachment C-III to Appendix C of 40 CFR 112, once it has been determined that the facility could cause substantial harm, the owner shall reference the response times discussed in Appendix E of 40 CFR 112. The response time for a Tier 1 response is 12 hours. Therefore, it is necessary to determine how long the spill will travel in this time.

RGAAF RRF Discharge Time			
Route	**Distance**	**V**	**Time [1]**
From AST 1 to Clear Creek via a seasonally-dry unnamed tributary	5,808	1.736	0.93
From Clear Creek to House Creek.	40,656	2.352	4.80
From House Creek to Cowhouse Creek	24,288	2.426	2.78
From Cowhouse Creek to Belton Lake	69,696	1.429	13.55
		Total time to reach Belton Lake	**22.06**
Note: 1. Time (hours) = [Distance (feet) / Velocity (V) feet/second] / 3,600 seconds/hour			

The spill will reach the confluence of House Creek and Cowhouse Creek in approximately 8.5 hours. Since resources will be arriving in 12 hours, the spill will travel on Cowhouse Creek for approximately 3.5 hours. This means it will travel approximately 3.4 miles.

1.429 feet/second X 3.5 hours X 0.68 (conversion factor) = **3.4 miles**

This point on Cowhouse Creek is still within the boundary of Fort Hood.

11.4.4 HAAF RRF

For the HAAF RRF, these spill pathways include an unnamed tributary to South Nolan Creek, South Nolan Creek, Nolan Creek, Leon River, and Lampasas River. The distance for each of these legs is shown below

HAAF RRF Discharge Information

Route	Distance (Miles)	Starting Elevation	Ending Elevation	Slope (S) [1]	Roughness Coefficient (N) [2]
From AST 1 to seasonally-dry drainage basin	0.2	870	860	0.0095	0.10
From seasonally-dry drainage basin through concrete-lined channel to seasonally-dry unnamed tributary	0.6	860	837	N/A [3]	N/A [3]
Seasonally-dry unnamed tributary to South Nolan Creek	0.8	837	799	0.0090	0.05
From South Nolan Creek to Nolan Creek	15.6	799	573	0.0027	0.05
From Nolan Creek to Leon River	9.5	573	442	0.0026	0.05
From the Leon River to Lampasas River	8.1	442	425	0.0004	0.04
Total Distance	**26.6**				

Notes:
1. Slope = (Starting Elevation – Ending Elevation)/Distance (in feet).
2. Roughness Coefficient = estimated average from Table IRP 11-1 for the route.
3. As per Section 5.2 of Appendix C to 40 CFR 112, flow through concrete channels can range from 3 – 25 feet per second. An average of 14 feet per second will be used.

For the hydraulic radius, the following information was obtained.

Hydraulic Radius

Route	Estimated average mid-channel depth	Hydraulic radius (R) [1]
From AST 1 to seasonally-dry drainage basin	1.5	1.00
From seasonally-dry drainage basin through concrete-lined channel to seasonally-dry unnamed tributary	N/A [2]	N/A [2]
Seasonally-dry unnamed tributary to South Nolan Creek	2.0	1.33
From South Nolan Creek to Nolan Creek	2.5	1.67
From Nolan Creek to Leon River	2.5	1.67
From the Leon River to Lampasas River	4.0	2.67

Notes:
1. Hydraulic radius is approximated by multiplying mid-channel depth by 0.667.
2. As per Section 5.2 of Appendix C to 40 CFR 112, flow through concrete channels can range from 3 – 25 feet per second. An average of 14 feet per second will be used.

The velocity for each leg is computed as shown below:

HAAF RRF Discharge Velocity				
Route	**N**	**R**	**S**	**V [1]**
From AST 1 to seasonally-dry drainage basin	0.10	1.00	0.0095	1.462
From seasonally-dry drainage basin through concrete-lined channel to seasonally-dry unnamed tributary [2]	N/A	N/A	N/A	14.0
Seasonally-dry unnamed tributary to South Nolan Creek	0.05	1.33	0.0090	3.442
From South Nolan Creek to Nolan Creek	0.05	1.67	0.0027	2.195
From Nolan Creek to Leon River	0.05	1.67	0.0026	2.154
From the Leon River to Lampasas River	0.04	2.67	0.0004	1.444

Note: 1. Velocity (V) = $1.5/N \times R^{2/3} \times S^{1/2}$ in feet/second
2. As per Section 5.2 of Appendix C to 40 CFR 112, flow through concrete channels can range from 3 – 25 feet per second. An average of 14 feet per second will be used.

Planning Distance Calculations

Per paragraph 1.6 in Attachment C-III to Appendix C of 40 CFR 112, once it has been determined that the facility could cause substantial harm, the owner shall reference the response times discussed in Appendix E of 40 CFR 112. The response time for a Tier 1 response is 12 hours. Therefore, it is necessary to determine how long the spill will travel in this time.

HAAF RRF Discharge Time			
Route	**Distance**	**V**	**Time [1]**
From AST 1 to seasonally-dry drainage basin	1,056	1.462	0.2
From seasonally-dry drainage basin through concrete-lined channel to seasonally-dry unnamed tributary	3,168	14.0	0.06
Seasonally-dry unnamed tributary to South Nolan Creek	4,224	3.442	0.34
From South Nolan Creek to Nolan Creek	82,368	2.195	10.4
From Nolan Creek to Leon River	50,160	2.154	6.47
From the Leon River to Lampasas River	42,768	1.444	8.23
		Total time to reach Lampasas River	**25.7**

Note: 1. Time (hours) = [Distance (feet) / Velocity (V) feet/second] / 3,600 seconds/hour

The spill will reach the confluence of South Nolan Creek and Nolan Creek in approximately 11.0 hours. Since resources will be arriving in 12 hours, the spill will travel on Nolan Creek for approximately 1.0 hour. This means it will travel approximately 1.46 miles.

2.154 feet/second X 1.0 hours X 0.68 (conversion factor) = **1.46 miles**

The discharge leaves the boundary of Fort Hood as soon as it enters the concrete-lined channel.

11.4.5 Total Planning Distance

The total planning distance for a worst-case discharge from Fort Hood would be:

Total Planning Distance	
Discharge From	**Distance (miles)**
BFSF	15.70 [1]
RGAAF Alert Tank Farm	18.15 [2]
RGAAF RRF	16.80 [3]
HAAF RRF	18.66 [3]

Notes:

1. Response equipment will reach the leading edge of the spill when it is 8.6 miles from Belton Lake.
2. Response equipment will reach the leading edge of the spill when it is 9.5 miles from Stillhouse Hollow Lake.
3. Response equipment will reach the leading edge of the spill when it is 9.76 miles from Belton Lake.
4. Response equipment will reach the leading edge of the spill when it is on Nolan Creek.

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12. WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES FOR A WORST-CASE DISCHARGE

This section contains the Federal worst-case discharge planning factors for Fort Hood. The facility is subject to regulation by the U. S. Environmental Protection Agency **(EPA)**.

12.1 THE EPA DISCHARGE CALCULATIONS

12.1.1 Small Discharge

The EPA definition for a small discharge for Fort Hood is 2,100 gallons.

12.1.2 Medium Discharge

The EPA definition for a medium discharge is the lesser of 10% of the worst-case discharge or 36,000 gallons. For Fort Hood, a medium discharge is 36,000 gallons.

12.1.3 Worst-Case Discharge

The EPA definition for a worst-case discharge is the combined capacity of the largest single AST with adequate containment, plus the capacities of all ASTs without adequate secondary containment. For Fort Hood:

- The largest tank with adequate secondary containment is Tank 111, which has a shell capacity of 636,488 gallons;
- As shown in Appendix C, there are 58 ASTs on Fort Hood without adequate secondary containment. The total volume for these tanks is 15,699 gallons; therefore,
- Fort Hood's worst-case discharge volume is 652,187 gallons.

12.1.4 Worst-Case Discharge Response Resources Planning Volumes

The following pages provide the calculations for the EPA worst-case discharge planning factors.

Part I. Background information: largest tank with adequate containment (Tank 111 in the BFSF) and tanks without adequate containment (58 as shown in Appendix C).

Step (A). Calculate worst-case discharge in gallons (in accordance with Appendix D to 40 CFR 112) — 652,187

Step (B). Oil group[1]{1} (from Table 3 to Appendix E of 40 CFR 112) — 1

Step (C). Operating area (choose one) — [ ] Nearshore/Inland Great Lakes [X] or Rivers and Canals

Step (D). Percentages of oil (from Table 2 to Appendix E of 40 CFR 112)

Percentage Lost to Natural Dissipation	Percentage Recovered Floating Oil	Percent Oil Onshore
80	10	10
(D1)	(D2)	(D3)

Step (E1). On-water oil recovery: Step (D2) x Step (A) / 100 — 65,219 (E1)

Step (E2). Shoreline recovery: Step (D3) x Step (A) / 100 — 65,219 (E2)

Step (F). Emulsification factor (From Table 3 to Appendix E of 40 CFR 112) — 1.0 (F)

Step (G). On-water oil recovery resource mobilization factor (from Table 4 to Appendix E of 40 CFR 112)

Tier 1	Tier 2	Tier 3
0.30	0.40	0.60
(G1)	(G2)	(G3)

[1] Group I oils represents > 97.5% of total oil storage capacity at Fort Hood. Therefore, only Group 1 spills have been considered.

Part II. On-water oil recovery capacity (gallons/day)

Tier 1	Tier 2	Tier 3
19,566	26,088	39,131
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III. Shoreline cleanup volume (gallons) 65,219

Step (E2) x Step (F)

Part IV. On-water response capacity by operating area
(From Table 5 to Appendix E of 40 CFR 112)
(Amount needed to be contracted for in gallons/day)

Tier 1	Tier 2	Tier 3
78,750 gals/day	157,500 gals/day	315,000 gals/day
(J1)	(J2)	(J3)

Part V. On-water amount needed to be identified, but not contracted for in advance (barrels/day)

Tier 1	Tier 2	Tier 3
0	0	0
Part II Tier 1 Step (J1)	Part II Tier 2 Step (J2)	Part II Tier 3 Step (J3)

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13. RESPONSE RESOURCES FOR WORST-CASE DISCHARGE

This section will provide information on contracted and other available response resources that can be activated for response to a worst-case discharge.

As described in Section 1.6 of this plan, the DFSP at Fort Hood is a government-owned contractor-operated facility that stores and supplies bulk fuel to military units at Fort Hood. The DFSP contractor operates under a DESC contract. DESC provides an operations contractor to operate DLA's capitalized product facilities at the BFSF and the HAAF RRF within the Main Cantonment Area and the RGAAF RRF and the RGAAF AF within West Fort Hood. The DESC operations' contractor has an OSRO on retainer in the case it is determined the Fort Hood first response capabilities are exceeded. The DESC operations contractor's OSRO is only used to respond to DLA-capitalized fuel spills. When responding to a DLA-capitalized fuel spill, the QI may decide additional spill response resources are needed and request the operations contractor's terminal manager, or his/her assistant, to initiate the OSRO. The terminal manager may also initiate the OSRO before directed by the QI. Before or immediately following initation of the OSRO, the terminal manager, or his/her assistant, will notify the Contracting Officer's Representative and the Contracting Officer. After initial cleanup of the spill, DESC's environmental cleanup contractor will assume the responsibility for long-term cleanup.

Section 13.1 provides information on the "contract or other approved means" and response equipment for Garner Environmental, a U. S. Coast Guard BOA contractor that is available for use by Fort Hood under the U. S. Coast Guard BOA contractor system.

Section 13.2 provides information on the "contract or other approved means" and response equipment for U. S. Navy Supervisor of Salvage.

Section 13.3 provides information on the "contract or other approved means" and response equipment for USA Environment, LP. USA Environment is the DESC's operations contractor's OSRO.

13.1 U. S. COAST GUARD BOA CONTRACTORS

Fort Hood also has the ability to utilize U.S. Coast Guard BOA contractors. These are generally Coast Guard classified or approved oil response contractors. An example of a USCG BOA contractor is shown below. A list of BOA contractors within the state of Texas is also provided.

Garner Environmental Services, Inc.	
ADDRESS	Garner Environmental Services, Inc. 1717 W. 13th Street Deer Park, TX 77536
DAY PHONE NUMBER	(281) 930-1200
24-HOUR PHONE NUMBER	(800) 424-1716
FAX	(281) 478-0296
POINT OF CONTACT	Reese Majoué
Distance from Fort Hood	Approximately 250 miles

Alphabetical OSRO Classifications by Company

Facilities *Vessels*

0027 Garner Environmental Services

		Facilities MM	Facilities W1	Facilities W2	Facilities W3	Vessels MM	Vessels W1	Vessels W2	Vessels W3
COTP: CORPUS CHRISTI									
☑ *High Volume Port*	*River/Canal*	☑	☑	☑	☑	☑	☑	☑	☑
	Inland	☑	☐	☑	☑	☑	☑	☑	☑
	Open Ocean	☐	☐	☑	☑	☐	☐	☑	☑
	Offshore	☐	☐	☑	☑	☐	☐	☑	☑
	Nearshore	☐	☐	☑	☑	☐	☐	☑	☑
	Great Lakes	☐	☐	☐	☐	☐	☐	☐	☐
COTP: HOUSTON-GALVESTON									
☑ *High Volume Port*	*River/Canal*	☑	☑	☑	☑	☑	☑	☑	☑
	Inland	☑	☑	☑	☑	☑	☑	☑	☑
	Open Ocean	☐	☐	☑	☑	☐	☐	☑	☑
	Offshore	☐	☐	☑	☑	☐	☐	☑	☑
	Nearshore	☐	☐	☑	☑	☐	☐	☑	☑
	Great Lakes	☐	☐	☐	☐	☐	☐	☐	☐
COTP: PORT ARTHUR									
☑ *High Volume Port*	*River/Canal*	☑	☑	☑	☑	☑	☑	☑	☑
	Inland	☑	☑	☑	☑	☑	☑	☑	☑
	Open Ocean	☐	☐	☑	☑	☐	☐	☑	☑
	Offshore	☐	☐	☑	☑	☐	☐	☑	☑
	Nearshore	☐	☐	☑	☑	☐	☐	☑	☑
	Great Lakes	☐	☐	☐	☐	☐	☐	☐	☐

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USCG BOA Contractors within Texas

COMPANY	ADDRESS	CITY	ST	ZIP CODE	PHONE	POC	BOA NO./MOD	Type of Service
CLEAN CHANNEL ASSOCIATION	111 East Loop North Room 270	Houston	TX	77029	(713) 676-1318	Edward Roe	DTCG84-98-A-800056	CO-OP
CORPUS CHRISTI AREA OIL SPILL CONTROL	P.O. Box 717	Corpus Christi	TX	78403	(361) 882-2656 (361) 882-7745 Fax	Tom Salazar Carl Christenson	HSCG84-04-A-800136	B/V
EVERGREEN HELICOPTER	2001 Terminal Drive	Galveston	TX	77554	(409)740-0231 (409)740-0541 Fax	Jeff Lemon James Porter	DTCG84-08-A-800004	M
GARNER ENVIRONMENTAL SERVICES	1717 West 13th Street	Deer Park	TX	77536	(281) 930-1200 (800) 424-1716 24-hour (281) 478-0296 fax (409) 761-0995 cell (504) 254-2444 (NOLA) (409) 935-0308 (KIM)	Otis Chambers Kenny Sconza (NOLA)	HSCG84-09-A-800001	B/O/H
LAREDO CONSTRUCTION INC.	13385 MURPHY ROAD	Stafford	TX	77477 4305	(281) 499-2565		HSCG84-06-A-800001	B/O/H
MILLER ENVIRONMENTAL SERVICES, INC.	600 Flato Road	Corpus Christi	TX	78405	(361) 289-9800 (888) 207-9403 (361) 289-6363 fax	John Perabo Jeff Gully	HSCG84-09-A-800002	B/O/H/SU/V
PNEUMATIC EMERGENCY SPILL RESPONSE, INC	PO BOX 490	Orangefield	TX	77639	(409) 735-9121 (409) 735-8074 fax (409) 960-1096 cell	Philip Robin	HSCG84-04-A-800145	B/O/H/ SU/V
R M WALSDORF	P.O. BOX 66	Brownsville	TX	78521	(956) 831-3984 (956) 831-4923 Fax	Robbie Walsdorf	DTCG84-02-A-800107 MOD 0001 MOD 0002	B/O/H/SU/V
T & T MARINE SALVAGE, INC.	9723 Telchman Road	Galveston	TX	77554	(409) 744-1222 (409) 770-7634 (cell) (409) 643-6385 (pager) (409) 744-5218 (fax)	Kevin Teichman	DTCG84-02-A-800126 MOD 0002	B/O/ SM/SS
WILD WELL CONTROL INC	22730 Gosling Road	Spring	TX	77389-4401	(281) 353-5481 (281) 353-5480 FAX	Scott Powell (Vice Pres.)	DTCG84-02-A-800122	F/O

Type of Service: B = Basic Cleanup; O = Oil; H = Hazardous; SM = Salvage (Major); SS = Salvage (Small Vessel); D = Disposal; A = Analysis; F = Marine Firefighting; SU = Storage Units; V = Vessels; T = Towing; SW = Surveying (Underwater); SG = Surveying (Ground); DD = Diving (Deep); DS = Diving (Shallow); M = Miscellaneous

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13.2 U. S. NAVY SUPERVISOR OF SALVAGE

Fort Hood also has the ability to use U. S. Navy Supervisor of Salvage for emergency response resources. The following information describes their capabilities.

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-OOO1

IN REPLY TO:

5090
Ser 00C25/2016
23 May 2008

From: Commander, Naval Sea Systems Command (00C)

Subj: AUTHORITY TO UTILIZE U.S. NAVY SUPERVISOR OF SALVAGE (SUPSALV) OIL SPILL RESPONSE EQUIPMENT

Ref: (a) OPNAVINST 5090.1C, Environmental and Natural Resources Program Manual
(b) 40CFR300, National Oil and Hazardous Substances Pollution Contingency Plan

Encl: (1) USCG Tiered Response Requirements, excerpts from 33CFR154, 33CFR155, and 40CFR112
(2) SUPSALV Equipment Capabilities

1. Pursuant to the Oil Pollution Act of 1990 (OPA 90), facilities handling threshold quantities of oil are required to maintain Facility Response Plans (FRPs) in accordance with EPA and U.S. Coast Guard direction. OPA 90 requirements for addressing the full range of spill response scenarios mandate that response equipment and trained personnel are in place to respond to these spills within certain time requirements. This letter authorizes any DoD facility to list in its FRP the spill response resources owned and managed by the U.S. Navy Supervisor of Salvage (SUPSALV).

2. In accordance with reference (a), the Office of the Supervisor of Salvage (SUPSALV) of the Naval Sea Systems Command (NAVSEA Code 00C) is responsible for providing technical support and resources to the Navy Fleet and shore establishment under the oil and hazardous substance (OHS) spill response program. Reference (b) discusses SUPSALV capability to provide spill response assistance, upon request of the On Scene Coordinator (OSC), to other federal agencies. SUPSALV maintains an extensive inventory of centrally-located, open-ocean and catastrophic (on land or afloat) spill response equipment that is strategically pre-positioned to provide rapid response to Navy spills. This equipment, with all required operating personnel, is available for response to any DoD component (and any other federal agency, if requested by the OSC) in the event of large oil spills beyond the capabilities of the facility's locally available spill response asserts. This equipment can be counted towards meeting the resource requirements specified in OPA 90 regulations. Access to this equipment is on a cost-reimbursable basis - there is no retainer charge. SUPSALV spill response assets are located within the United States (Williamsburg, VA, Pt. Hueneme, CA, Pearl Harbor, HI, and Anchorage, AK). SUPSALV military and civilian technical specialists are available around-the-clock to provide further information on available resources and to assist

with on-scene emergency response by providing technical assistance and/or coordinating the deployment and management of SUPSALV contractor and ESSM resources as required by the Navy/Federal customer.

3. SUPSALV's equipment inventory is capable of rapid deployment by either air or truck. The gear has been specifically designed to be self-supporting and capable of operating in remote locations if need be. This capability allows SUPSALV to operate in both in-land and at-sea environments. For almost 60 years, SUPSALV personnel, equipment, and technical specialists have supported Navy Commanders and other federal agencies in responding to many of this nation's major incident response operations. These have occurred both at sea and inland and include major spills such as the Colonial Pipeline spill in Northern Virginia (for EPA), Hurricane Katrina response (for DHS), response to 1993 floods in Missouri (for FEMA), Exxon Valdez spill in Alaska (for USCG), and the Roosevelt Roads, Puerto Rico oil spill (for DLA).

4. Regulatory agencies have established a combination of required response resources and the times within which the resources must arrive on scene. Enclosure (1) provides a summary of these Tier requirements as described in 40CFR112, 33CFR154, and 33CFR155. The geographic dispersion of SUPSALV's Emergency Ship Salvage Material (ESSM) bases allows SUPSALV flexibility in pulling equipment from the closest ESSM site or support contractor site, or by cascading equipment from other bases. This can greatly expedite response times and increase the amount of available assets. Response from the ESSM base at Williamsburg generally meets Tiers 2 and 3 time requirements for the Gulf Coast, East Coast, and Great Lakes, and Tier 3 requirements on the West Coast (except for the Puget Sound area). Response from the ESSM base at Pt. Hueneme generally meets the Tiers 2 and 3 time requirements for the West Coast and Tier 3 requirements on the Gulf Coast, East Coast, and Great Lakes. This response capability allows most DOD facilities and afloat entities to list SUPSALV as an appropriate responder in their spill contingency plans (such as Facility Response Plans, Spill Contingency Plans, and Vessel Response Plans) in order to meet government mandated response requirements. To determine a predicted response time for any specific facility, please call the point of contact at SUPSALV listed below.

5. The SUPSALV web link, identified below, may be useful during update of Oil and Hazardous Substances (OHS) spill contingency plans for Navy and other Department of Defense facilities that cite SUPSALV as a spill removal organization. Contingency planning information such as detailed equipment inventories broken out by location, equipment descriptions, and other ESSM system information can be located on the SUPSALV website at www.supsalv.org/essm/. This website provides access to the SUPSALV/ESSM system, with accompanying links to pollution equipment inventory and details on the ESSM operations. The ESSM

Operations link provides guidelines for requesting SUPSALV assistance (such as request procedures, funding requirements, sample request message). Under the Pollution functional links of the website, users will find "Inventory" links that open a generalized inventory table listing the equipment available at each location. These inventory lists are updated periodically as equipment is added to or removed from the inventory. A detailed discussion of the procedures for requesting SUPSALV assets is also available from a link on this web site. Specific, detailed procedures for requesting SUPSALV assets can be obtained from SUPSALV at the time support is requested. Enclosure (2) lists equipment capabilities using OPA 90 calculations. These figures may be used in determining equipment requirements necessary to meet worst case discharge (WCD) scenarios. Further descriptions of the equipment capabilities can be provided upon request. Each command remains responsible ensure that their facility can meet the tiered response requirement criteria outlined in the regulations.

6. Addressees desiring to include SUPSALV response assets in their contingency planning, or desiring further information, should coordinate with the points of contact listed in this paragraph. Addressees are further requested to distribute information regarding SUPSALV's response resources to their subordinate commands. Questions concerning access to SUPSALV resources can be addressed to the SUPSALV Operations and Ocean Engineering Division at (202) 781-1731, extension 2. Points of contact are Mr. Mike Herb for salvage matters and Mr. Kemp Skudin for pollution response matters. For after-hours emergencies, contact the NAVSEA Duty Officer at (202) 781-3889.

Richard W. Hooper
Supervisor of Salvage and Diving
Director of Ocean Engineering, USN

DISTRIBUTION:
National Response Team
Regional Response Teams
National Air and Space Administration
National Oceanic and Atmospheric Administration
National Science Foundation
USCG District Offices (dr)
USCG Sector Commands
U.S. Maritime Administration (MAR-610.1)
USNORTHCOM (J3, J5)
Deputy Commandant of the Marine Corps (Installations and Logistics)
HQ USAF (AF/A7C, AF/A7CV)
HQ Air Force Civil Engineer Support Agency (AFCESA)
Air Force Petroleum Agency (AFPA)
HQ Air National Guard (ANG)
Army Corps of Engineers
ATZF-CSS Marine Safety Office (Dept of the Army Watercraft Fleet)
ASAR 63rd RSC/99th RRC (Dept of the Army Reserve Watercraft Fleet)
COMSC (N732)
COMSUBFOR (N451A))
NAVFAC LANT (EV12)
NAVFAC PAC (EV1)
NFESC
NAVFAC MIDLANT (N45, EV1)
NAVFAC SOUTHEAST (N45, EV1)
NAVFAC MIDWEST (N45, EV1)
NAVFAC SOUTHWEST (N45, EV1)
NAVFAC NORTHWEST (N45, EV1)
NAVFAC WASH (N45, EV1)
NAVFAC HAWAII (N45, EV1))
NAVFAC MARIANAS (N40, EV1)

Copy to:
USCG Headquarters (CG-533)
USCG Marine Safety Center
Federal Emergency Management Agency
Environmental Protection Agency
Office of the Secretary of Defense (Joint Director of Military Support (JDOMS))
Missile Defense Agency (SBX-1 Program)
Defense Energy Support Center (DESC-WE)
OPNAV (N452)
COMPACFLT (N01CE15, N3, N4, N4655)
CUSFFC (N3, N43, N7)
COMUSNAVEUR (N3, N43)
COMUSNAVCENT (N3, N44, N5)
CNIC (N45)
NAVFACHQ (CWA Program Administrator)
NAVFAC FAREAST (EV1)
COMNAVREG MIDLANT (N451)
COMNAVREG SOUTHEAST (N45)

COMNAVREG MIDWEST (N45)
COMNAVREG SOUTHWEST (N45)
COMNAVREG NORTHWEST (N45G)
COMNAVREG HAWAII (N45)
COMNAVREG MARIANAS (N40)
COMNAVFOR JAPAN (N45)
COMNAVFOR KOREA (N91)
COMNAVREG EUR (N45)
CCOMNAVREG SWA (EVSWA, N45)
NAVFAC EURSWA (EV1)
COMSECONDFLT
COMTHIRDFLT
COMFOURTHFLT
COMFIFTHFLT
COMSIXTHFLT
COMSEVENTHFLT
NSWCCD-SSES

TIERED RESPONSE REQUIREMENTS

RESPONSE TIMES:

33 CFR 154 Required Response Times for Marine-Transportation-Related Facilities	Tier 1 Time Hrs.	Tier 2 Time Hrs.	Tier 3 Time Hrs.
High Volume Port Areas (except for a TAPAA facility located in Prince William Sound, see 33 CFR 154.1135)	**6**	**30**	**54**
Great Lakes	**12**	**36**	**60**
All other river and canal, inland, and nearshore areas	**12**	**36**	**60**

33 CFR 155 Required Response Times for Vessels	Tier 1 Time Hrs.	Tier 2 Time Hrs.	Tier 3 Time Hrs.
High Volume Port Areas	**12**	**N/A**	**N/A**
Great Lakes	**18**	**N/A**	**N/A**
All other river and canal, inland, and nearshore areas	**24**	**N/A**	**N/A**
Open ocean (plus travel time from shore)	**24**	**N/A**	**N/A**

40 CFR 112 Required Response Times for Non-Transportation-related Onshore and Offshore Facilities	Tier 1 Time Hrs.	Tier 2 Time Hrs.	Tier 3 Time Hrs.
High Volume Port Areas	**6**	**30**	**54**
Great Lakes	**12**	**36**	**60**
All other river and canal, inland, and nearshore areas	**12**	**36**	**60**

RESPONSE CAPABILITY REQUIREMENTS CAPS BY OPERATING AREA:

February 18, 1998 *(40 CFR 112, 33 CFR 154 & 33 CFR 155)*	Tier 1	Tier 2	Tier 3
All except Rivers and Canals, Great Lakes	**12.5K bbls/day**	**25K bbls/day**	**50K bbls/day**
Great Lakes	**6.25K bbls/day**	**12.3K bbls/day**	**25K bbls/day**
Rivers and Canals	**1.875K bbls/day**	**3.75K bbls/day**	**7.5K bbls/day**

Note: 1) The caps show cumulative overall effective daily recovery capacity, not incremental increases.

2) The Regulations proposed new Caps to be established on February 18, 2003. However, to date such updates have not been promulgated by the EPA or USCG

Enclosure (1)

SUPSALV EQUIPMENT INVENTORY FOR CONTINGENCY PLANNING PURPOSES

(Go to http://www.supsalv.org/essm for actual, current equipment location)

SKIMMING SYSTEMS

	RECOVERY EQUIPMENT	
System I.D.	System	Estimated Daily Recovery Capacity (EDRC)
P16400	Vessel Skimmer	1,234 EDRC (bpd)
P16100	Modular Vessel Skimmer	1,234 EDRC (bpd)
P16300	Sorbent Belt Skim VOSS – CL XI	1,371 EDRC (bpd)
P16300	Wier Skimmer VOSS	1,371 EDRC (bpd)
P16300	High Speed Skimmer VOSS	1,996 EDRC (bpd)
P16500	Heavy Debris Recovery System	2,728 EDRC (bpd)
P16600	Rope Mop Skimmer	1,920 EDRC (bpd)
P18100	Vacuum Pump Skimmer	3,477 EDRC (bpd)
P16200	Salvage Support Skimmer	2,242 EDRC (bpd)
P16800	Dispersant System	2,057 EDRC (bpd)
P16700	Inland Support Skimmer	2,613 EDRC (bpd)

BOOM

	BOOM EQUIPMENT	
System I.D.	System	Ft. of Boom
P19100	42" Boom Van	2,000
P19090	26" Boom Van*	4,000
P19100	18" Inflatable Boom Van*	4,000
TBD	18" Non-Inflatable Boom Van*	2,000

Note: 1) SUPSALV anticipates adding both 18" and 26" boom to the ESSM inventory in the near future.

TEMPORARY STORAGE

	STORAGE EQUIPMENT	
System I.D.	System	TSC
P14100	136k Gallon Bladder	3,238 bbls
P14200	290k Gallon Bladder	6,905 bbls
P14300	23k Gallon Bladder	547bbls
P14300	26k Gallon Bladder	619 bbls
P14300	50k Gallon Bladder	1,190 bbls

Note: Temporary Storage Capacity (TSC) listed above reflects equipment currently among SUPSALV physical assets, including bladders assigned to Skimming Systems. Additional TSC is available through SUPSALV's contracted resources

(The following pages are excerpts from NAVSEA 0300 -BR-MAN-010, S0300-BV-CAT-020, and the SUPSALV website: http://www.supsalv.org/essm/Pol_Inv.asp.)

Chapter 4B. RESPONSE TIMES AND RATES

4B.1 Transportation

The SUPSALV ESSM equipment will be deployed to the spill area from the ESSM base by the most expeditious transportation method. These methods include truck, air cargo, and ship/bare transportation. The most expeditious transportation mode will be determined by SUPSALV on the basis of distance, the time available, and the equipment needed.

The requesting activity must provide a contact for all transportation coordination with a 24-hour phone number. A complete shipping address for the delivery site/staging area must be provided to SUPSALV before shipment of the equipment from the ESSM warehouses.

4B.3 Aircraft Response Times

To determine response times for an aircraft-based response, use the following formula:

RESPONSE TIME = 6 Hours + Flight Time + Transit Time to Spill Site from an Airstrip

Chapter 5. EQUIPMENT INVENTORY

5.1 Inventory

SUPSALV inventories and maintains three types of pollution response equipment. All equipment is ready for immediate deployment with operating personnel. The following types of equipment are available:

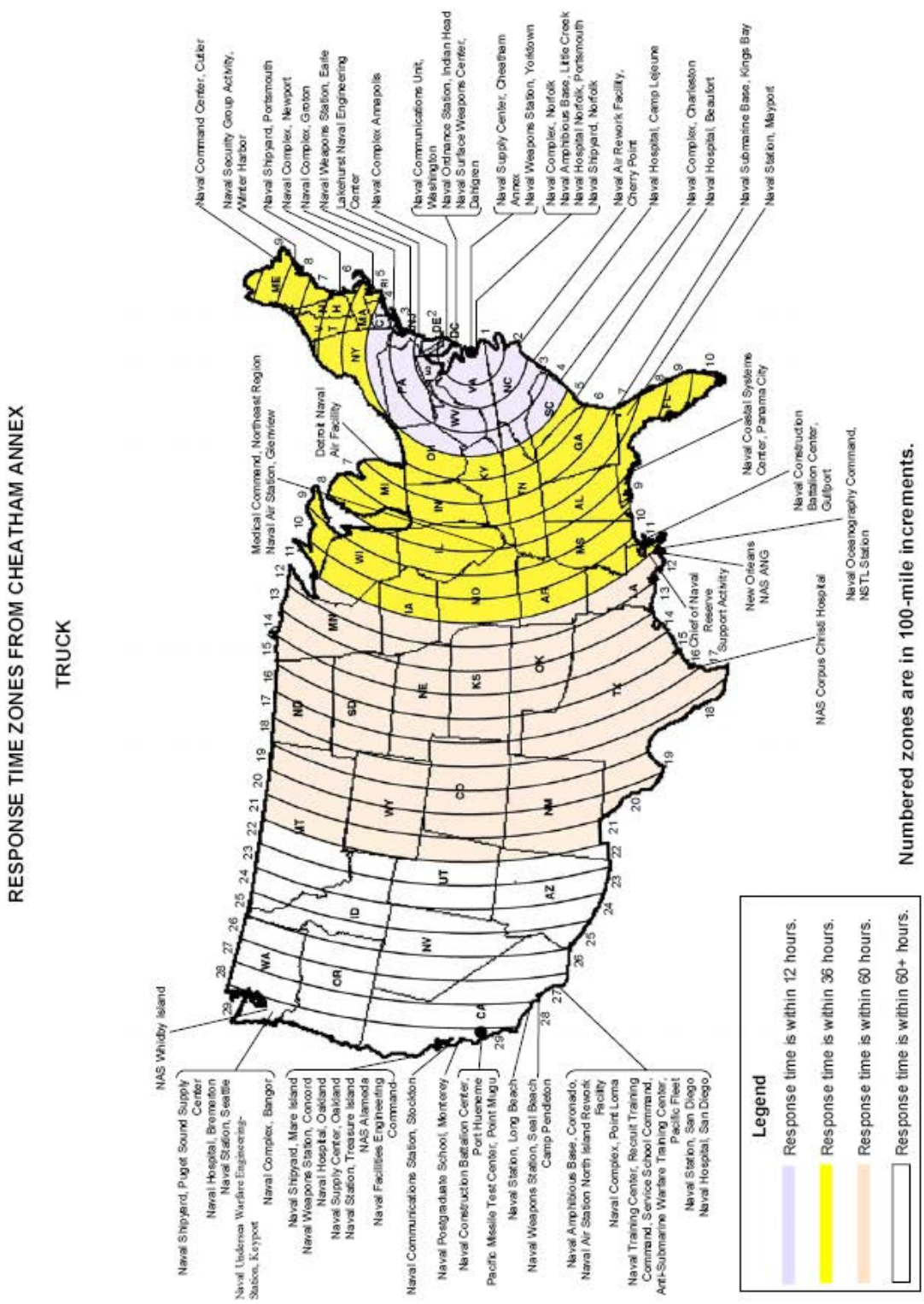
- SPILLED OIL RECOVERY – Includes equipment and systems such as skimmers and oil containment booms used for the control and recovery of spilled oil.
- CASUALTY OFFLOADING – This equipment is used to prevent or minimize the spill of oil from a casualty by offloading the ship's petroleum, oil, and lubricants (POL).
- ANCILLARY SUPPORT EQUIPMENT – Includes equipment such as small boats, rigging vans, shop vans, and other support material that can be set up on-site.

An inventory of SUPSALV pollution control equipment follows. Any logistic support requirements such as large support vessels, aircraft, staging areas, and related items must be locally provided and should be addressed in local contingency plans. These requirements are described in Chapter 7.

SUPERVISOR OF SALVAGE & DIVING										
OPERATIONAL POLLUTION EQUIPMENT DISTRIBUTION BY LOCATION										
REVISED: 28 MAY 2008										
ABBREVIATION DEFFINITION										
ALASKA: ALK	ITALY: ITY		SINGAPORE: SIG							
BAHRAIN: BAH	JAPAN: JPN		WILLIAMSBURG, VA. CAX							
HAWAII: HII	PORT HUENEME,CA. : PHE									
This inventory is subject to change without notice.			CAX	PHE	ALK	HI	SIG	JPN	ITY	BAH
EQUIPMENT DESCRIPTION			INV	INV	INV	INV	INV	INV	INV	INV
1. OIL CONTAINMENT SYSTEMS:										
1.1 BOOM 42in 2000Kft/van	P19100		22	11	4	7	0	0	0	10
FUG BOOM		VA0720	6	3	2	2				
USS-42HB BOOM		VA0737	16	6	2	4				10
USS-42 BOOM		VA0738	0	2		1				
1.6 BOOM MOORING SYSTEM	P04100		14	27	14	12	0	0	0	20
500LB ANCHOR		MS0009	7	18	8					7
1000LB ANCHOR		MS0011	7	9	6	12				13
1.7 BOOM MOORING SYSTEM	P04200	MS0020	10	18	14	10	0	0	0	0
(DEEP WATER EXTENSION)										
2. OIL RECOVERY SYSTEMS										
2.1 VESSEL SKIMMER SYSTEM	P16400	SK0721	5	4	1	1	0	0	0	1
2.2 MODULAR VESSEL SKIMMER SYS	P16100	SK0711	3	4	2	2	0	0	0	1
2.3 HIGH SPEED SKIMMER SYSTEM	P16300	SK0050	1	1	0					1
2.4 SORBENT BELT VOSS SYSTEM	P16300	SK0924	1	0	1					0
2.5 SALVAGE SUPPORT SKIMMER SYS	P16200	VA2220	3	3	0	1	0	0	0	1
2.6 INLAND SUPPORT SKIMMER SYSTEM	P16700	VA0800	0	0	2	0	0	0	0	0
2.7 HEAVY DEBRIS OIL RECOVERY SYSTEM	P16500		3	0	1	0	0	0	0	0
VAN #1 (bobcat)		VA1650	3		1					
VAN # 2 (skimmers)		VA1651	4							
2.8 VACUUM PUMP/SKIMMER SYSTEM	P18100	VS8100	2	0	0	0	0	0	0	0
VACUUM SYSTEM, HIGH PRESSURE, THREE TANK		VS0010	1							
VACUUM PUMP/SKIMMER SYSTEM		VS8100	1							
2.9 WIER VOSS SKIMMER SYSTEM	P16300	SK0800	2	1	1					0
2.10 ROPE MOP SKIMMER SYSTEM	P16600	SK0723	1	0	2					
2.11 OIL RECOVERY BLADDER (POOL, 26-50K)	P14300		5	2	1	1	0	0	0	2
26K BLADDER		OB0809	0	0	0	0				0
23K BLADDER		OB0810	4	0	0	0				0
50K BLADDER		OB0820	1	2	1	1				2
3. DISPERSANT SYSTEMS										
3.1 DISPERSANT SPRAY UNIT SYSTEM	P16800	DU0200	0	0	0	0	0	0	0	2
4. OIL TRANSFER SYSTEMS										
4.1 TANKER OFFLOAD SYSTEM	P17100		4	3	2	4	2	2	2	2
4.2 2"-6" POL HYDRAULIC PUMPING SYSTEM	P17200	VA0280	3	1	0	0	0	0	0	1
4.3 HOT TAP SYSTEM	P10100	VA0736	4	2	0	1	0	0	0	0
4.4 LIGHTERING FENDERS										
(LP PNEUMATIC 10'x50' 4/SYS)	P06100	VA2221	3	2	1	0	0	0	0	0
(LP PNEUMATIC 14'x60' 4/SYS)	P06200	FN2072	2	1	0	0	0	0	0	0
4.5 FLOATING HOSE SYSTEM	P08100		3	1	0	0	0	0	0	0
4.6 OIL STORAGE BLADDER (136K GAL)	P14100	OB0800	5	5	1	0	0	0	0	0
4.7 OIL BLADDER TRANSFER SYSTEM	P20300	VA2290	3	1	0	0	0	0	0	0
4.8 STEAM GENERATORS	P12200		3	1	0	0	0	0	0	
STEAM GENERATOR 120 HP		VA2500	2	1						
4.9 TANKER BOARDING KIT	P02100	BO0543	3	2	0	1	0	0	0	0
4.10 ROV LIGHTERING SYSTEM		RV0010	1	0	0	0	0	0	0	0
5. SUPPORT BOATS										
5.1 BOOM/SKIMMER TOW BOAT 24'	P03100	WB0722	6	4	2	4	0	0	0	8
5.2 BOOM TENDING BOAT (RIGID) 18'	P03200	WBO942	2	5	2	1	0	0	0	0
5.3 BOOM TENDING BOAT (INFLAT)	P03300		8	3	2	2	0	0	0	0
19' INFLATABLE		WB0730	4		1	1				
23' INFLATABLE		WB0732	4	3	1	1				

5.4 PERSONNEL TRANSFER BOATS	P19900		3	1	1	2	0	0	0	2
BOAT, 15' RIGID HULL INFLATABLE		WB0735	1							
BOAT, 24' RIGID HULL INFLATABLE		WB0736	1	1	1	1				1
BOAT, 22.5' RIGID HULL INFLATABLE		WB0740	0			1				1
BOAT, 22' COMMAND		WB0941	1							
5.5 EQUIPMENT TRANSFER BOATS	P20400	VA2400	1	1	1	1	0	0	0	0
5.6 SHALLOW WATER HOOVERCRAFT	P20000	WB0975	1	0	0	0	0	0	0	0
6. FIELD SUPPORT SYSTEMS										
6.1 COMMAND TRAILER	P19400		3	2	0	0	0	0	0	0
VAN, COMMAND TRAILER, 45' MOD. (NEW)		VA0717	1	0						
VAN, COMMAND TRAILER, 40' MOD. (NEW)		VA0718	1	1						
VAN, COMMAND TRAILER, 40' (OLD)		VA0719	1	1						
6.2 COMMAND VAN	P19300	VA0727	3	2	1	1	0	0	0	1
6.3 RIGGING VAN	P19600	VA0010	3	2	1	1	0	0	0	2
6.4 SHOP VAN	P19700	VA0508	2	2	1	1	0	0	0	2
6.5 PERSONNEL BUNK VAN	P19500	VA0734						0		
6.5.1 PERSONNEL BUNK VAN SHORE	P19500	VA0734	1	1	1	0	0	0	0	2
6.5.2 PERSONNEL BUNK VAN SHIPBOARD	P19550	VA0735	3	1	0	0	0	0	0	0
6.6 EQUIPMENT DECON VAN	P19200	VA2119	0	3	1	1	0	0	0	2
6.7 SUPPLY VAN	P19800	VA0740	1	1	0	0	0	0	0	0
6.8 BEACH TRANSFER SYSTEM	P01100	VA2113	2	3	1	1	0	0	0	0
6.9 COMMUN. SYSTEM (LAND BASED)	P05100		4	0	0	0	0	0	0	2
PHONE, SEA PAK-M MARITIME MINI		PH0940	2	0	0	0				1
INTERNET, Satellite, Worldwide			0							
PHONE, SATELLITE (IRIDUM)		PH1730/1	3	0	0	0				1
6.10 COMMUN. SYSTEM (SHIPBOARD)	P05200		2	0	0	0	0	0	0	0
PHONE SHIPBOARD SATCOM 8' X 10' CONT		PH0920	0							
PHONE SHIPBOARD SATCOM 8' X 8' CONT		PH0922	0							
COMMUN. SYSTEM (RANGE ENHANCING)		RA0905	1	0	0	0	0	0	0	0
6.11 HOSE VAN	P20200		1	0	0	0	0	0	0	0
6.12 FIRE FIGHTING SYS (PORT OSFS)	P07100	FF0500	3	3	1	1	0	0	0	1
6.14 MATERIAL TRANSFER SYSTEM	P11100	AF0026	1	1	0	0	0	0	0	0
6.15 MODULAR WORKING PLATFORM	P06400	BA0005	2	1	0	0	0	0	0	0

S0300-BV-CAT-020



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S0300-BV-CAT-020

APPROXIMATE TRAVEL TIMES AND TRUCKING COSTS FROM CHEATHAM ANNEX, VA				
Destination	Miles (Note 1)	Hours (Note 2)	Average Cost Per Mile	Cost (Note 3)
Zone 1	1 – 100	3	(See Note 4)	
Zone 2	101 – 200	6	$2.49	$498.00 (See Note 5)
Zone 3	201 – 300	8.6	$2.49	$747.00 (See Note 5)
Zone 4	301 – 400	11.5	$2.49	$996.00
Zone 5	401 – 500	14.5	$2.49	$1,245.00
Zone 6	501 – 600	17	$2.49	$1,494.00
Zone 7	601 – 700	20	$2.49	$1,743.00
Zone 8	701 – 800	23	$2.49	$1,992.00
Zone 9	801 – 900	26	$2.06	(See Note 6)
Zone10	901 – 1,000	28.5	$2.06	$1,957.00 to middle of zone
Zone 11	1,001 – 1,100	31.5	$2.06	$2,266.00
Zone 12	1,101 – 1,200	34.5	$2.06	$2,369.00 to middle of zone
Zone 13	1,201 – 1,300	37	$2.06	$2,575.00 to middle of zone
Zone 14	1,301 – 1,400	40	$2.06	$2,781.00 to middle of zone
Zone 15	1,401 – 1,500	43	$2.06	$2,987.00 to middle of zone
Zone 16	1,501 – 1,600	46	$2.06	$3,193.00 to middle of zone
Zone 17	1,601 – 1,700	48.5	$2.06	$3,502.00
Zone 18	1,701 – 1,800	51.5	$1.85	$3,237.50 to middle of zone
Zone 19	1,801 – 1,900	54.5	$1.85	$3,422.50 to middle of zone
Zone 20	1,901 – 2,000	57	$1.85	$3,607.50 to middle of zone
Zone 21	2,001 – 2,100	60	$1.85	$3,792.50 to middle of zone
Zone 22	2,101 – 2,200	63	$1.85	$3,977.50 to middle of zone

5-8 Change A

S0300-BV-CAT-020

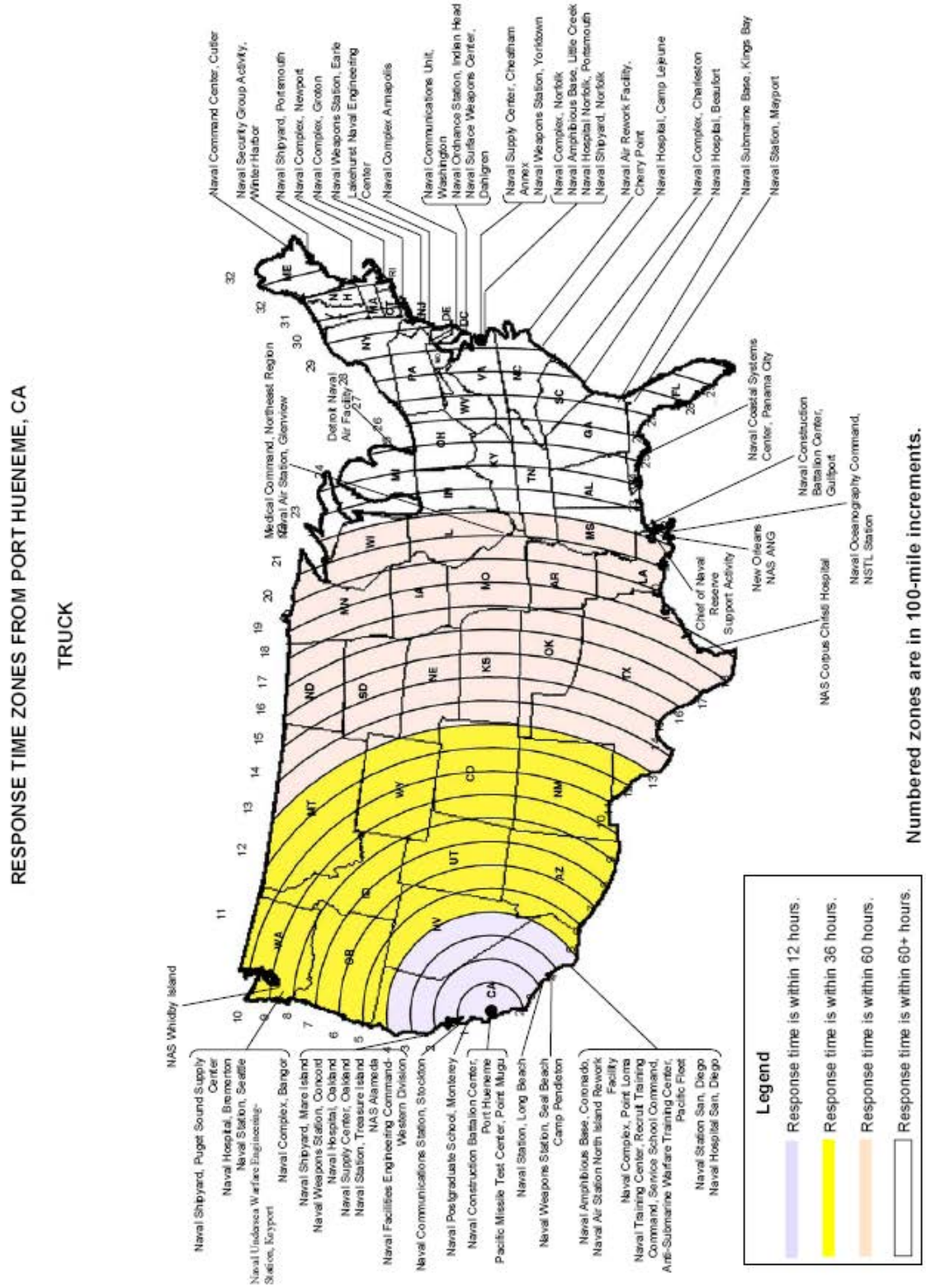
APPROXIMATE TRAVEL TIMES AND TRUCKING COSTS FROM CHEATHAM ANNEX, VA				
Destination	Miles (Note 1)	Hours (Note 2)	Average Cost Per Mile	Cost (Note 3)
Zone 23	2,201 – 2,300	66	$1.85	$4,162.50 to middle of zone
Zone 24	2,301 – 2,400	69	$1.85	$4,347.50 to middle of zone
Zone 25	2,401 – 2,500	71.5	$1.85	$4,532.50 to middle of zone
Zone 26	2,501 – 2,600	74.5	$1.85	$4,717.50 to middle of zone

NOTES

1. All mileages, times, and costs are from Cheatham Annex, zone 1.
2. Average rate of travel is 35 miles per hour per USCG guidance.
3. Cost within each zone will vary depending on actual mileage.
4. Minimum cost to Yorktown, Norfolk, Little Creek, or Portsmouth is $375.00. Minimum cost to Annapolis, Washington, Indian Head, or Dahlgren is $625.00.
5. Minimum cost to Cherry Point and Camp Lejeune is $550.00.
6. Cost to Cutler is $2,241.00. Cost to Panama City is $1,854.00.

Change A 5-9

S0300-BV-CAT-020



5-10 **Change A**

S0300-BV-CAT-020

APPROXIMATE TRAVEL TIMES AND TRUCKING COSTS FROM PORT HUENEME, CA				
Destination	Miles (Note 1)	Hours (Note 2)	Average Cost Per Mile	Cost (Note 3)
Zone 1	1 – 100	3	$4.50	$450.00
Zone 2	101 – 200	10	$2.49	$498.00
Zone 3	201 – 300	7-8	$2.49	$747.00
Zone 4	301 – 400	8	$2.49	(See Note 4)
Zone 5	401 – 500	10	$2.49	(See Note 5)
Zone 6	501 – 600	20	$2.49	$1,494.00
Zone 7	601 – 700	20	$2.49	$1,743.00
Zone 8	701 – 800	20	$2.49	$1,992.00
Zone 9	801 – 900	20	$1.80	(See Note 6)
Zone10	901 – 1,000	30	$1.80	$1,800.00
Zone 11	1,001 – 1,100	30	$1.80	$1,980.00
Zone 12	1,101 – 1,200	30	$1.80	$2,160.00
Zone 13	1,201 – 1,300	30	$1.80	$2,340.00
Zone 14	1,301 – 1,400	30	$1.80	$2,520.00
Zone 15	1,401 – 1,500	30	$1.80	$2,700.00
Zone 16	1,501 – 1,600	40	$1.80	$2,880.00
Zone 17	1,601 – 1,700	50	$1.80	$3,060.00
Zone 18	1,701 – 1,800	50	$1.60	$2,880.00
Zone 19	1,801 – 1,900	40	$1.60	$3,040.00
Zone 20	1,901 – 2,000	50	$1.60	$3,200.00
Zone 21	2,001 – 2,100	50	$1.60	$3,360.00

S0300-BV-CAT-020

APPROXIMATE TRAVEL TIMES AND TRUCKING COSTS FROM PORT HUENEME, CA				
Destination	Miles (Note 1)	Hours (Note 2)	Average Cost Per Mile	Cost (Note 3)
Zone 22	2,101 – 2,200	40	$1.60	$3,520.00
Zone 23	2,201 – 2,300	50	$1.60	$3,680.00
Zone 24	2,301 – 2,400	50	$1.60	$3,840.00
Zone 25	2,401 – 2,500	50	$1.18	$2,950.00
Zone 26	2,501 – 2,600	60	$1.18	$3,068.00
Zone 27	2,601 – 2,700	60	$1.14	$3,078.00
Zone 28	2,701 – 2,800	60	$1.14	(See Note 7)
Zone 29	2,801 – 2,900	60	$1.14	(See Note 8)

NOTES

1. All mileages, times, and costs are from Port Hueneme, CA, zone 1.

2. Average rate of travel is 35 miles per hour per USCG guidance.

3. Cost within each zone will vary depending on actual mileage.

4. Cost to Seal Beach, CA is $920.00. Cost to Long Beach, CA is $900.00.

5. Cost to San Diego, CA is $1,020.00. Cost to Camp Pendleton, CA is $1,020.00. Cost to Coronado, CA is $1,150.00.

6. Cost to Seattle, WA is $978.44. Cost to Keyport, WA is $979.66. Cost to Bremerton, WA is $978.44.

7. Cost to Yorktown, VA is $3,317.75. Cost to Indian Head, MD is $3,315.45. Cost to Annapolis, MD is $3,184.50. Cost to Washington, D.C. is $3,162.50.

8. Cost to Camp Lejeune, NC is $3,290.15. Cost to Norfolk, VA is $3,315.45. Cost to Cherry Point, NC is $3,332.70. Cost to Little Creek, VA is $3,329.25.

5-12 Change A

13.3 USA ENVIRONMENT, LP

Fort Hood has contracted with USA Environment, LP. As per the contract shown in the following pages, USA Environment, LP will provide pollution response resources. Their offices are located in New Braunfels and Houston, TX. Each location is within Tier 1 response times. Following the contract will be additional information on their equipment and capabilities.

CONTRACT

This Contract ("Contract") is effective as of the 12th day of November, 2008, by and between USA Environment, LP, a Texas Limited Partnership, whose address is 10234 Lucore, Houston, Texas 77017, hereinafter referred to as "USA", and Maytag Aircraft, a Corporation, whose address is 6145 Lehman Dr Suite 300 Colorado Springs CO, 80918-3440, hereinafter referred to as "CLIENT", each who may be separately referred to as Party or collectively as Parties;

WHEREAS, CLIENT desires to engage the services of USA on behalf of the United States Government, Department of Defense (DoD), Defense Logistics Agency (DLA), Defense Energy Support Center (DESC), as a Service Contractor under DESC Contract # SP0600-06-D-5606; and

WHEREAS, USA and CLIENT agree that services to be performed under this Contract will be engaged only on a contingency basis requiring the expressed written approval of the DESC Contracting Officer or his authorized designated representative for Contract # SP0600-06-D-5606.

WHEREAS, USA desires to provide certain services for CLIENT;

NOW, THEREFORE, in consideration of the mutual promises, payments and covenants therein contained and other good and valuable consideration, received to the full satisfaction of each of them, the parties hereby agree as follows:

1. **Term** The term of this Contract shall be:

   [ ] Single project as specified in the attached work order, or purchase order, which shall be incorporated into this Contract by reference herein.

   [X] The term shall expire on December 31, 2012.

When no option is selected above, the contract will remain in effect for one (1) year from the date hereof and shall continue on a year to year basis unless either Party cancels it prior to that time by written notice to the other; provided, however, the cancellation or expiration of the term of this Contract shall not affect either Party's obligations under any Orders issued and accepted prior to such expiration or cancellation

2. **Scope of Work** The scope of work for services performed per this contact shall be as specified in the attached work order, or purchase order, which shall be incorporated into this Contract by reference herein.

3. **Pricing.** The price for services performed per this contact shall be as specified in the attached work order, or purchase order, which shall be incorporated into this Contract by reference. A not to exceed (NTE) quote will be offered, which shall be agreed to by both parties in a work or purchase order or agreement, prior to the start of work.

1

The not to exceed amount quoted may be estimated based on time and material rates; however, the scope of work shall be negotiated based on the CLIENT's understanding of the service requirement and USA's professional assessment of how the requirement(s) may be met. Should the initial not to exceed quote require modification due to changing conditions surrounding the service requirement, or for other cogent reason, USA will notify the CLIENT and both parties shall re-enter into negotiations and agree to revisions. Prior to continuation of work USA will offer a new not to exceed quote incorporating the agreed changes for the CLIENT's approval. Deviations to this clause shall be agreed to in writing by both parties.

4. **Invoicing and Payments.**

   4.1. **Payments.** To the extend practicable, payments will be made in lump sum based on a total amount quote agreed to by both parties prior to the start of work. Should provided services exceed a 30 day period (one month), monthly invoicing is authorized prorated with respect to the total amount of the purchase order or agreement in effect at the time.

   4.2. **Final Invoice.** After the work under an order is completed, the amount due for all work, to include all charges for agreed to modifications to the initial lump sum quote, the associated subcontracts, vendor, and reimbursable items received by USA, shall be issued in final invoice at the lump sum quoted price.

   4.3. **Payment.** Payment is due under the final approved invoice within 30 (thirty) days after the date of the invoice unless otherwise specified by USA. Interest shall accrue on payments not received within thirty (30) days at the lesser of (i) the maximum lawful interest rate or (ii) one and one-half percent (1 ½%) per month, or eighteen percent (18%) per annum. USA reserves the right to withhold delivery of reports and other project documentation pending receipt of payment.

5. **Responsibility for Payment.** CLIENT agrees to make payment to USA for services rendered in the amounts and on the terms specified above, regardless of whether CLIENT or another person or entity is legally responsible for the services being provided, and regardless of whether CLIENT is entitled to reimbursement for such costs from his or from some other person's or entity's insurance carrier.

6. **Termination for Non-Payment** . In the event CLIENT fails to make any payment when due under this Contract, USA may stop work under any Services performed issued and accepted and may terminate this Contract and/or all Services performed for non-payment and seek recovery of its damages from CLIENT.

7. **Information and Authorization**. For each Services performed issued and accepted hereunder, CLIENT shall furnish to USA all pertinent data and information concerning the work to be performed; the nature of CLIENT's premises or site and the nature of the conditions to be remediated, including any special hazards or risks involved with such work, premises, site or conditions. Such information shall be included on the Services performed. CLIENT shall procure any and all applicable

federal, state and local approvals, consents, permits, licenses and Orders required to enable USA to perform the work contemplated hereby.

8. **Compliance With Environmental Laws.**

   8.1. CLIENT hereby warrants that all material, substances, or waste to be stored, treated and/or disposed of under this Contract is the sole and exclusive property of CLIENT or other third party.

   8.2. The parties hereto agree that USA is not and shall not be considered (i) the owner of the material, substances, or wastes noted in the Scope of Work; (ii) the operator of a waste management facility; (iii) the generator, storer, or disposer of hazardous or solid waste; (iv) to have arranged for the transportation or disposal of any wastes, pollutants, or contaminants by virtue of the performance of this Contract or anything contained herein, as those terms are used in RCRA, the Comprehensive Environmental Response, Compensation and Liability Act, as amended, or any other federal or state statute or regulation governing the treatment, transportation, storage, or disposal of materials or wastes.

   8.3. In the event that CLIENT requests USA's assistance in meeting CLIENT's or other third party obligations as set forth herein, USA as requested by CLIENT may (i) collect samples and perform analytical testing to assist CLIENT in the characterization of waste for the purpose of CLIENT's manifests; (ii) identify a number of potential transporters and disposal facilities from which CLIENT may select in accomplishing the transportation and disposal of collected waste; (iii) draft the technical provisions of contracts or purchase Orders and prepare manifests implementing CLIENT's selection of a transporter and/or disposal facility for review and execution solely by CLIENT.

9. **Access to Work Site.** CLIENT shall coordinate with the appropriate United States Government entity or agency to secure all approvals, easements, licenses, and right-of-way necessary for USA to access the work site under any Services performed issued and accepted hereunder. CLIENT shall coordinate with the appropriate United States Government entity or agency to ensure that any right-of-way provided to or from any work site shall be suitable for the size and weight of vehicles employed by USA to perform the work. CLIENT shall coordinate with the appropriate United States Government entity or agency when additional construction, modification, repair, or restoration of any right-of-way may be necessary to perform the work.

10. **Insurance.** USA will procure and maintain, at its expense during the term of this Agreement, the minimum insurances coverages stated below. Such insurance coverage shall be procured from an insurance company with an AM Best Rating of A or better.

    a) Worker's Compensation - Statutory Limits

    b) Employer's Liability:
       a. $1,000,000 bodily injury each accident;
       b. $1,000,000 bodily injury by disease each employee;

c. $1,000,000 by disease policy limit

c) General Liability (includes pollution coverage)
   a. $1,000,000 General Aggregate
   b. $1,000,000 Each Occurrence
   c. $1,000,000 Products/Completed Operations Aggregate
   d. $1,000,000 Personal & Advertising Injury
   e. $500,000 Damage to Premises Rented
   f. $50,000 Medical Payments

d) Umbrella Liability Coverage (includes pollution coverage): $9,000,000 each occurrence and in the aggregate.

e) Automobile Liability (including owned, non-owned and hired vehicles): $1,000,000 combined single limit.

f) Professional Liability : $1,000,000 Each Loss

Within three (3) days of the execution of this Contract, USA shall furnish an original certificate of the above insurance coverage to Client on standard ACORD forms. Such certificate will name the Client as an additional insured party.

The certificate of insurance will state that the policies will not be canceled, except for non-payment of the premiums, without thirty (30) days written notice via U.S. mail to the Client.

11. **Indemnity**. USA and CLIENT each jointly and severally agree to defend, indemnify and hold harmless each other, their shareholders, directors, officers, employees, agents, and assigns from and against any and all losses, claims, actions, causes of action, liabilities, expenses and other costs of any kind or amount whatsoever (including, without limitation, reasonable attorney's fees), whether equitable or legal, matured or contingent, known or unknown, foreseen or unforeseen, ordinary or extraordinary, patent or latent, brought by a third party which result from the breach of this contract, negligence or other fault of USA or the CLIENT. The indemnifying party shall defend and settle, at its own expense and by its own counsel, each such action brought against the other party by a third party. The indemnifying party shall not consent to the entry of any judgment or enter into any settlement with respect to the third party claim without the prior written consent of the indemnified party. Notwithstanding the foregoing, the indemnified party shall have the right to participate in any matter through counsel of its own choosing. Such separate representation shall be at the cost and expense of the indemnified party as long as the indemnifying party is pursuing the defense of such matter diligently, reasonably and in good faith. If the indemnifying party within fifteen (15) days fails to acknowledge in writing to the indemnified party its obligation to defend any such matter or does not diligently, reasonably and in good faith assume the defense hereunder within fifteen (15) days, the indemnified party may undertake such defense through counsel of its choice and at the indemnifying party's expense.

12. **Consequential Damages.** Notwithstanding anything to the contrary contained in this Agreement, neither USA nor CLIENT will be liable under any circumstances to the other for any special, consequential, incidental indirect or punitive damages of any kind or character, including, but not limited to, loss of use, loss of profit, loss of revenue, and loss of product or production, whether arising under this Agreement or as a result of relating to or in connection with the Work under this Agreement or any Services performed, and neither USA nor CLIENT will ever make a claim for such damages against the other or the other's related entities, their officers, directors, shareholders, employees, servants, agents or insurers whether such claim is based or claimed to be based on negligence, unseaworthiness, fault, breach of warranty, breach of agreement, statue, strict liability or otherwise.

13. **Notices.** All Services performed acceptances or rejections of Services performed, notices, communications or statements required to be given hereunder shall be delivered to the Parties as indicated below:

USA Environment, LP	Maytag Aircraft Corporation
Attn: Bret Pardue, President	Attn: David D. Nelson, EVP/COO
10234 Lucore Street	6145 Lehman Drive, Suite 300
Houston, Texas 77017	Colorado Springs, CO 80918
Facsimile: 713-425-6956	Facsimile: 719-593-8518

14. **Entire Agreement.** This Contract and the Exhibits hereto comprise the complete agreement of the parties respecting the services to be performed. No engagements, promises, representations, or warranties have been made by either party except as expressly stated in this Contract and Exhibits, and the parties hereby expressly disclaim all implied warranties. All modifications to this Contract shall be in writing, signed by both parties hereto.

15. **Venue.** The parties stipulate and agree that this Contract and all Services performed issued and accepted hereunder are entered into Harris County, Texas, and all payments due hereunder are due in Harris County, Texas, and that venue to bring any proceeding for the enforcement hereof is proper in Harris County, Texas.

16. **Breach and Resolution.** Any controversy or claim arising out of or relating to this Contract, to any Services performed issued and accepted hereunder, or the breach of either shall be settled using alternate dispute resolution (ADR) legal procedures under the laws of the State of Texas. Any dispute among the parties shall be exclusively and finally resolved in arbitration by a single arbitrator, with venue in Houston, Texas, or other venue agreed to by the parties, without recourse to any court. All arbitrations shall be governed by the Commercial Arbitration Rules of the American Arbitration Association, as in effect at the time of arbitration.

17. **Attorney's Fees.** Neither party pursuing legal proceeding attendant to this Contract or any Service performed, issued and accepted hereunder shall be entitled to recover the other party's attorney's fees and/or costs of litigation.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives.

USA Environment, LP

By: _____ By: _____
(Signature) (Signature)

Russell Herrschen, VP
(Printed Name & Title)

David D. Nelson, EVP/COO
(Printed Name and Title)

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February 20, 2009

Attention: Richard Muth

Re: Request for information - USA Environment L.P. Response equipment

Dear Sir,

Thank you for your recent communication and information request regarding the updating of the Fort Hood Integrated Response Plan, it is our pleasure to supply you with currently available information related to your request.

USA Environment, LP (USA) provides a full range of high end environmental services, including the supplying of transportation, disposal, remediation, demolition and radiological services directly to Consultants, Engineers, Generators and Specific Clients on a wide variety of environmental projects throughout the United States.

From our national headquarters in Houston Texas we also maintain and staff satellite offices in New Braunfels as well as Aubrey in Texas and also in Louisiana, Arkansas and New Mexico.

Although we have been actively involved with emergency response and remediation services for many years, USA Environment L.P. only recently embarked on the road to obtaining an OSRO classification from the United States Coast Guard, this is however a lengthy process and at the time of preparing this communication the project have not been completed yet.

Attached to this cover letter please find a summary of information regarding our response equipment, contractors and applicable information as requested for your perusal.

Should you have any questions or need more information please contact me directly at 713.202.4961.

Sincerely,

Debbie Jorgensen

P.O. Box 87687 Houston, Texas 77287
Office (713) 425-6900 Fax (713) 425-6956 1-866-USA-2100
www.usaenviro.com

USA ENVIRONMENT L.P. CONFIDENTIAL

Information request
PCCI Inc.

Attention: Richard Muth

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INFORMATION REQUEST

ATTACHMENT A

Company owned equipment information

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INTRODUCTION:

USA Environment L.P. owns and operates on of the largest fleets of vehicles and equipment in our specific industry and also maintains formal agreements with service provider contract companies to supply us with any equipment, material or people on short notice should we require it.
Please note that the equipment listed in these documents are associated to the project in question and does not include all vehicles and or equipment owned or in use by the company at any time.

SUMMARY OF LICENSES AND CERTIFICATIONS:

TYPE	STATE	LICENSE #
Corrective Action Specialist (CAS)	Texas	RCAS00839
Underground Storage Tank Contractor	Texas	CRP001398
Contractor's License	Louisiana	39216
Contractor's License	Mississippi	13728
Contractor's License	Tennessee	00053043
Contractor's License	North Dakota	32023
Contractor's License	New Mexico	94621
Contractor's License	California	859914
Contractor's License	Arkansas	0179650407
Asbestos Abatement Contractor's License	Arkansas	000444
Contractor's License	Florida	QB50725
Contractor's License	Iowa	86031-06
Contractor's License	Maryland	0001636885
Contractor's License	Utah	6312184-0181
Contractor's License	Washington	USASNEL 941NQ
Contractor's License	Nevada	0067128
State Registration	Kansas	036-760673714F-01
State Registration	Nebraska	N/A
Underground Storage Tank Contractor	South Carolina	325
Radioactive Material License	Subject to Reciprocity	L05616-01
EPA ID #	N/A	TXR000043539
TCEQ State ID #	Texas	86133
Hazardous Materials Transportation License	Continental United States	063003552043LM
Non-Hazardous Materials Transportation License	Continental U.S. / Foreign	MC-409728-P
USDOT Identification Number	Continental United States	959361
Asbestos Transporter License	Texas	82395
Demolition License	Arizona	ROC223493
Site Remediation License	Arizona	ROC223494

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USA ENVIRONMENT L.P. SPECIFIC EQUIPMENT – Company owned property:

No.	Description	Quantity	Capacity	Location
1	Vacuum Trucks	7 units	70 bbls – 3000 gallon capacity. Load rate @ 25 psi is 816 gpm-air 440 cfm	Houston
2	Vacuum Trucks	3 units	70 bbls – 3000 gallon capacity. Load rate @ 25 psi is 816 gpm-air 440 cfm	Louisiana
3	Vacuum Trucks	1 unit	70 bbls – 3000 gallon capacity. Load rate @ 25 psi is 816 gpm-air 440 cfm	New Braunsfel
4	Air Machine vacuum trucks (27 inch machines)	6 units	3000 gallon capacity. Max load rate 5300 CFM	Houston
5	Liquid Ring - Air Machine - vacuum trucks	1 unit	3000 gallon capacity. Max load rate 3800 CFM	Houston
6	Air Machine vacuum trucks (27 inch machines)	1 unit	3000 gallon capacity. Max load rate 5300 CFM	Louisiana
7	Combo rigs	2 units	1500 gallon capacity. Max load rate 4200 cfm – 2500 psi 55 gpm pressure washer reel mounted	Houston
8	Drum skimmer	1 unit	Abasco DS 2500 W/DH Power pack 50 GPM	Houston
9	Boats	• 12' v bottom • 14' John Boat • 18' John Boat • 24' Cab workboat	• 1 • 2 • 1 • 1	Houston

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No.	Description	Quantity	Capacity	Location
10	Diaphragm pumps • 1" • 2" • 3"	 • 2 • 2 • 3	 • 47 GPM • 172 GPM • 237 GPM	Houston
11	Vacuum Trucks	3 units	70 bbls – 3000 gallon capacity. Load rate @ 25 psi is 816 gpm-air 440 cfm	Louisiana
12	River Boom 18 "	2300 feet trailer mounted		Houston
13	• Absorbent Boom 4" • Absorbent Boom 8"	• 40 Bags • 40 Bags	• 25 Gallon • 60 Gallon	Houston
14	Miscellaneous equipment associated to ER and Environmental – operational activities such as hand tools, portable electrical equipment, Personal protective equipment	Depending on project needs		Houston Louisiana New Braunsfel

EQUIPMENT TESTING:

All USA Environmental L.P equipment is on a formal preventative maintenance schedule and equipment is inspected on regular intervals. When deviations to manufacturer's specification are observed it is corrected immediately through replacement or repair.

EXERCISES, DRILLS AND TRAINING: PREP – Preparedness for Response Exercise Program

USA Environmental L.P. Participates in regular formal exercises and drills regarding spill response for the Fort Hood project.

Last Exercise attended ;
Defense Fuel Support Point Fort Hood - June 24- 25, 2008
Presented by Tracy Taylor and Paul Gentry of SPECTRA TECH ENSAFE
contract # SP0600-07-D-5704

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INFORMATION REQUEST

ATTACHMENT B

Support contract services and equipment information

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INTRODUCTION:

USA Environment L.P. maintains formal agreements with quality service providing contract companies in our industry to supply us with any equipment, material or people on short notice should we require it. Please note that the equipment listed in these documents are associated to the project in question and does not include all vehicles and or equipment owned or in use by the company at any time.

USA ENVIRONMENT L.P. SPECIFIC EQUIPMENT – Contracted services / equipment:

Contractor support team – Formal agreement and or letters of intent in place

No	Name	Services provided	Location
1	Shelton Services	• Equipment • Personnel	Houston
2	Dillon Environmental	• Equipment • Personnel	Oklahoma
3	Clean Coast Tech.	• Materials • Personnel	Houston
4	Abatix Corp	• Materials • Equipment	Houston
5	Rain for rent	• Materials • Equipment	Houston
6	Adler Tank rentals	• Equipment	Houston

Following documented proof of association, intend and commitment from the above listed contractor companies for the project in question.

Information also includes specifications regarding:

- Equipment
- Services
- Material

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INFORMATION REQUEST

ATTACHMENT C

Contractor specific information

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Clean Coast Technologies

1041 Thomas Ave., Pasadena, TX 77506
Phone: (713) 378-0000
Fax: (713) 378-0404

February 12, 2009

USA Environment,
10234 Lucore Street
Houston, TX 77017

To: USA Environment,

Clean Coast Technologies Inc. offers in support to USA Environment, full access to our inventory to be used at any and all times. The inventory consists of spill control, environmental remediation, industrial safety and construction materials. As part of our agreement with USA Environment we offer 24 hour 7 days a week response service that includes nights, weekends and holidays if needed. We have worked very close with USA Environment for years. We have a deep appreciation and hold a high value on our business relationship and hope to continue this partnership for many future transactions.

Regards,

Ronnie Reeves
President
Clean Coast Technologies Inc.
1041 Thomas Ave.
Pasadena, TX 77506

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February 12, 2009

Ms. Debbie Jorgensen
USA Environment
PO Box 87687
Houston, TX 77287

Re: OSRO Letter of Intent

Dear Mr. Jorgensen:

Rain For Rent currently maintains the following equipment at our facility located at 2712 Battleground Road, LaPorte, TX 77571, capable of assisting USA Environment's efforts for oil spill response.

Houston:

312	500 bbl. Frac tanks
21	160 bbl. Poly tanks
16	100 bbl. Poly tanks
86	12 x 50 spillguard containments & decontamination pads
45	12 x 16 spillguard containments & decontamination pads
112	Vacuum Assist Pumps
6280 ft.	Various hoses

San Antonio:

120	500 bbl. Frac tanks
14	160 bbl. Poly tanks
12	100 bbl. Poly tanks
60	12 x 50 spillguard containments & decontamination pads
30	12 x 16 spillguard containments & decontamination pads
36	Vacuum Assist Pumps
1280 ft.	Various hoses

Pursuant to the Master Service Agreement between Rain For Rent and USA Environment and based on equipment availability, Rain For Rent is available 24 hours per day 365 days per year to respond to your oil spill needs.

Respectfully,

Tim Cox
Rain For Rent
Sr. Account Manager.

2751 Aaron St
Deer Park, TX 77536
281-479-5675 (office) 281-479-8403 (fax)
www.adlertankrentals.com

To: **Debbie Jorgensen, USA** **Date: February 12, 2009**

From: **John Stewart, General Manager**

Subject: **Adler Tank Rentals support and commitment to work with USA**

Adler Tank Rentals is a rental service company that specializes in the rental of temporary liquid storage tanks (frac tanks, mini fracs, etc), various styles of roll off boxes (water tight roll offs, vacuum, dewatering, trash boxes, etc) and transportation (delivery, return, relocations, and non hazardous hauling) along the gulf coast, east coast and mid west.

Our team is ready to support USA 7 days a week 24 hrs a day to ensure that their expectations are exceeded and their requirements are met. Adler has over 60 years of experience in servicing our customers. Our approach is a team approach from the minute the call is made, be it an emergency response situation or a planned project.

Adler Tank Rentals takes pride in getting the opportunity to work as a team with USA, their need is our priority. We ensure that they get what they want in good condition when they want it. Our goal is to be part of their team and get involved when the thought process and planning of a project begins; this allows us to better service their needs.

Adler provides a fully trained staff to provide information and equipment to USA as needed. We own our trucks and equipment. We do not have an answering service; we answer all calls and respond to USA immediately.

Adler Tank Rentals and USA Environmental look forward to the opportunity to demonstrate our commitment to SERIVCE and SAFETY.

John Stewart

SHELTON SERVICES INC.
P.O. Box 15. Huffman, Tx. 77336
Telephone (832) 731-9157, (713) 553-6562

February 16, 2009

Ms. Debbie Jorgensen
USA Environment, LP.
10234 Lucore Street
Houston, TX 77017

Re: Letter of Intent

Dear Ms. Jorgensen, This letter will serve as a non-binding agreement between USA Environment, LP. and Shelton Services, Inc. for Emergency Response Services.

Shelton Services, Inc. agrees to respond to your activation call, on an as needed basis, with available resources and personnel. Further, you agree to the terms, rates and conditions made by Shelton Services, Inc. in effect at the time of the response unless other agreements are in place.

You may contact us at 832-731-9157, 24 hours a day, 7 days a week in the event of an emergency.

Sincerely,

James Haack
Vice President Operations,
Shelton Services Inc.

14 Feb, 2008

Shelton Services Inc. Equipment List

Transportation

1-1 Ton 4x4 Truck

2- ¾ Ton 4x4 Truck

2- ½ Ton 4x4 Truck

3- 15 Passenger Vans

1- 31 Foot RV

Trailers

1- 32 Foot Spill Trailer (Equipment)

1- 20 Foot Boom Trailer

1- 16 Foot Cage Trailer

3- 5x8 Utility Trailer

2- 5x10 Utility Trailer

Decontamination Equipment

1- 4,000 PSI Heated Pressure Washer (Self Contained)

Boats

1- 26 Foot Fast Response Boat (Twin 115Hp Motors)

Pumps

4- 2" Wash Pumps

1 | Page

Recovery Equipment

1- Elastec Drum Skimmer (35 GPM)

Heavy Equipment

1- 33Hp John Deere Tractor

Boom

3000 Feet- 18" River Boom

ATV's

2- 4x4 Mule

2- 4x4 ATV

Miscellaneous Equipment

1- 23KW Generator (Trailer Mounted)

10- Weed Eaters

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DILLON ENVIRONMENTAL SERVICES INC.
P.O. Box 1393 Ardmore , OK. 73401
Telephone (580) 226-5303
Cellular (580) 490-1718
Fax (580) 226-5372

February 17, 2009

Ms. Debbie Jorgensen
USA Environment, LP.
10234 Lucore Street
Houston, TX 77017
713.335.9750 (office) 713.202.4961 (mobile) 713.425.6956 (fax)

Re: Letter of Intent

Dear Ms. Jorgensen, This letter will serve as a non-binding agreement between USA Environment, LP. and Dillon Environmental Services, Inc. for Emergency Response Services.

Dillon Environmental Services, Inc. agrees to respond to your activation call, on an as needed basis, with available resources and personnel. Further, you agree to the terms, rates and conditions made by Dillon Environmental Services, Inc. in effect at the time of the response unless other agreements are in place.

You may contact us at (580) 226-5303 or (580) 490-1718, 24 hours a day, 7 days a week in the event of an emergency.

Sincerely,

Chuck Fuller
Chief Financial Officer,
Dillon Environmental Services, Inc.
(580) 220-7071

Dillon Environmental Equipment List - Page 1 of 2 11/20/08

Transportation
2 – 1 Ton Trucks (2X4)
6 – 3/4 Ton Trucks (4X4)
2 – 1/2 Ton Suburban
2 – 30 foot RV

Trailers
1 – 32 foot Spill Trailer (Equipment)
1 – 18 foot Spill Trailer (Equipment)
1 – 30 foot Flat Bed Trailer
1 – 22 foot Enclosed Boom Trailer
2 – 18 foot Utility Trailers
2 – 10 foot Utility Trailers
2 – 24 foot Utility Trailers
1 – 12 foot Dump Trailer

Boats
1 – 34 foot Barge Boat
1 – 26 foot Work Boat
1 – 20 foot Work Boat
3 – 16 foot Jon Boats
2 – 12 foot Jon Boats
2 – 17 foot Mud Boats

Heavy Equipment
1 – 4X4 Backhoe
1 – Tractor with front end loader
1 – Mini Excavator
1 – Tracked Skid Steer
1 – 10K Extenda Boom Forklift
1 – 8K Extenda Boom Forklift
1 – 5K Forklift

Pumps
14 – 2" Wash Pumps
2 – 3" Diaphram Pumps
1 – 2" Diaphram Pump
1 – Floating Wash Pump
1 – 6" Trash Pump

Recovery Equipment
1 – Marco Sidewinder (100 GPM)
3 – Elastec Drum Skimmers (35 GPM)
2 – 500 Gallon Vacuum Units

Dillon Environmental Equipment List – Page 2 of 2

Boom
10,000 feet – 18" River Boom
2,000 feet – 10" Marsh Boom
2,000 feet – 6" Marsh Boom

Decon Equipment
5 – 3,500 PSI Heated Pressure Washers
2 – 3,000 PSI Pressure Washers
2 – 50X20 Decon Pools

ATVs
3 – 4X4 Mules
3 – 4X4 ATVs

Miscellaneous Equipment
3 – 5K Generators
1 – 20K Generator
3 – Gas Powered Air Compressors
1 – 185 CFM Air Compressors
3 – Welding Machines
3 – Air Monitoring Units
2 – Copus Blower
5 – Chainsaws
6 – Weedeaters

Attachments: USA Enventory List.xls

From: Greg Campbell [mailto:gcampbell@abatix.com]
Sent: Thursday, February 12, 2009 2:14 PM
To: Oscar Guebara
Subject:

To USA Environmental,
Abatix offers, in support to USA Environment, full consignment of supplies on premises to be used at any and all times.
The supplies consist of spill control, environmental remediation, industrial safety, and construction materials.
We also offer 24 hour 7 days a week response service, which include nights, weekends and holidays if needed.
In partnership with USA Environment, we hold high, in value, our relationship, and will proceed to appreciate all business
Transactions.
Thank you!

Greg Campbell
Abatix Corp.
713-956-2062 office
713-256-7445 Cell
www.abatix.com

2/13/2009

Items In Stock at Houston, Texas Yard

Item	Desc	On Hand
2WW8048M-2XL	2W Surveyors Vest XXL	9
2WW8048M-L	2W Surveyors Vest Large	4
2WW8048M-XL	2W Surveyors Vest XL	15
3M2091	P-100 Particulate Filter 100/Case	400
3M6003	Cartridge, Organic Vapor/Acidgas 60/cs	360
3M6009	Mercury Filter Cartridge 60/Cs	0
3M60923	Cart.Org. Vap.Acidgas/P100 F/6000 60/Cs	120
3M6200	Respirator, Medium Half Face Mask 24/Cs	48
3M6300	Respirator, Large Half Face Mask 24/Cs	0
3M6800	Respirator, Medium Full Face 4/Cs	16
3M6900	Respirator, Large Full Face 4/Cs	8
AAS0100109	Traffic Cone 18"	0
AAS700QEV	Winter Liner Quilted	12
AMRLMH17	Abatix Spray Adhesive 12/Case	3
AVO222	Paint Orange Fluorescent Marking	0
AVO229	Paint Glo Pink Upside Down Marking	12
BAG63860C-H	Bag 38x60 Clear General Debris 50/Roll	30
BTPC	Barrier Tape 3x1000 Yellow Caution	19
BTPDDNE	Barrier Tape 3x1000 Danger Do Not Enter	12
BUC5LP	Lid For 5 Gal Plastic Bucket	27
BUC5P	Pail 5 Gal PlasticWith Handle, No Lid	13
CEVB510	Sorbent Booms 5X10 - 4/Bale	12
CEVER144-38	38X144X1/4 Oil Absorbent Roll	3
CEVG100PD	Sorbent Pads 17X19-12Oz Polypro 100/Bag	24
CEVG4BM	Sorbent Booms 8X10 - 4/Bale	56
CEVMERCSK25	Mercury Spill Kit	0
CGW35599	Cutoff Wheel 14" x 5/32" 20mmA24-R Metal	22
CRW181640	Faceshield, Clear 8 X 15 1/2 In X .040	600
CRW2230R	Goggle, Chemical With Ventilated Sides	108
CRWKD110	Glasses, Klondike Clear Lens/Black Frame	144
CRWKD112	Glasses, Klondike Grey Lens/Blk Frame	192
CRWKD119	Glasses, Klondike Indoor/Outdoor Lens	144
DOT55R	55 Gal DOT Drum OpenTop W/Lid & Ring	25
DUPQC122SYL3X	P.E. Coated Tyvek Coverall Hood/Boot 3XL	3
DUPQC127SYL2X	P.E. Coated Tyvek Coverall Hood Only 2XL	5
DUPQC127SYL3X	P.E. Coated Tyvek Coverall Hood Only 3XL	15
DUPQC127SYL4X	P.E. Coated Tyvek Coverall Hood Only 4XL	13
DUPQC127SYL5X	P.E. Coated Tyvek Coverall Hood Only 5XL	84
DUPQC127SYLXL	P.E.Coated Tyvek Coverall HoodOnly XL 12	36
DUPSL123BWH2X	***DISCONTINUED***Saranex Coverall	36
DUPSL123BWH3X	***DISCONTINUED***Saranex Coverall	12
DUPSL123BWH4X	***DISCONTINUED***Saranex Coverall	48
ECHO6459012	Bar & Chain Oil Quart	0
ELE12-100U	Extension Cord 12/3 100 ft	4
ELE12-50U	Extension Cord 12/3 50 ft	3
ELEL-14	Portable Light 1000 Wt Twinhead Halogen	0
EXT10ABC	Fire Extinguiser Abc Type 10#	0
EXT20ABC	Fire Extinguiser Abc Type 20#	0
FAK2025E	First Aid Kit - 25 Person Metal Case	0
FAK2050E	First Aid Kit - 50 Person Bulk	0
FAL911	Falcon Air Horn	18
FUL315-0271	Bolt Cutter 24 In	2
FUL315-0277	Bolt Cutter 36 In	0
FUL600-3317	16 Oz F/G Hndl Hammer	6
GAT03944	Gatorade 2.5 Gal/Pk Variety 32Pk/Cs	2
HLILPF-30	Ear Plug Max-Lite Corded 100/Bx NRR 30	21
HUD60153	Sprayer Poly Tank 3	4
HUNMODELH	Model H Headgear for Fullbrim	41

IES2019-4XL	IESI Poly-Pro Coverall Hood/Boot 4X 25/C	1
IES2513Y-XL	Boot Covers-Yellow Latex XL 50 Pair/Cs	100
IES8019-3XL	Microporous Coverall Hood/Boot 3XL 25/CS	1
IES8019-4XL	COVERAL HOOD&BOOT WHT MICROPOR 25/CS 4XL	6
IGL120	Ice Chest 120qt	0
INDCJS1625-2XL	Coverall Indura Navy Blue 2XLarge	9
INDCJS1625-3XL	Coveral Indura Navy Blue 3XLarge	4
INDCJS1625-4XL	Coverall Indura Navy Blue 4XLarge	0
INDCJS1625-5XL	Coverall Indura Navy Blue 5XLarge	3
INDCJS1625-L	Coverall Indura Navy Blue Large	1
INDCJS1625-XL	Coverall Indura Navy Blue XLarge	4
INDCJS1675-L	Coverall Indura Khaki Large	0
KAPZ1S428YW4X	Kappler Zytron 100 12/cs Zytron Coated	0
KIM34790	Wypall X60 TerryWipersWhite 10Bx/Cs	0
KROIL10010	Kroil Penetrant 10oz aerosol	24
LAC228260-09	Boot, Full Metatarsal	2
LAC228260-10	Boot, Full Metatarsal	1
LAC228260-11	Boot, Full Metatarsal	1
LAGAMRA437-20	WASP & HORNET KILLER II, 12/13.5 OZ	2
LAGBRU119	Handle Brace Large	0
LAGBRU136	METAL TIP HANDLE60X15/16	0
LAGBRU20124	Push Broom Palmyra 24 In	1
LAGDRK94308	C-SCRUBBING BUBBLE(9432)AEROSOL 12/25 OZ	12
LAGDRK94903	Deep Woods Off Insect 6oz 12/Case	24
LAGGOJ0955-04	Gojo Orange Hand Cleaner W/Pum	8
LAGGOJ9652	PURELL HAND SANITIZER12/8 OZ	2
LAGPGC45114	JOY Dishwashing Liquid 38oz.	16
LAGSMP13005	Simple Green Concentrate 1 Gal	96
LAGUNS423	PLSTC SYPHON PUMPW/ADPTR	7
LAK5428-2X	P.E.Coated Tyvek Coverall 2X, 25/cs	2
LAK5428-4X	P.E.Coated Tyvek Coverall 4X, 25/cs	7
LAK72150-5XL	Tychem SL Coverall, Hood and Boots 6/cs	0
LDR202206	Ladder, Fiberglass 6 300Lb	0
LNX618R	Sawzall Blades 6 X 18T Metalcut 5/Pack	35
LOUFE3232	Louisville 32 ft. F/G Extension Ladder	1
LOW2CYC-OIL	2 cycle oil	0
MAS1KA2125	1KA 2125 Master Lock	0
MAXMP19-2XL	MAXGUARD MP, Hood and Boot Coverall	3
MEG1211J	Gloves, Shoulder Leather JointDouble Pal	504
MEG5059L	Latex Disposable, Powdered, Smooth, Larg	10
MEG5059XL	Latex Disposable, Powdered, Smooth, XL	20
MEG5310	Gloves, Size 10 Nitrile Unlined,11 Mil,S	0
MEG6212	Gloves, 12 PVCsmooth Finish	0
MEG6212R	Gloves, 12 PVCrough Finish	240
MEG9668L	Regular Weight. Cotton/Polyester, PVC Do	240
MGB2024SL	Pushbroom Blk Plastic Bristle 24" w/hdle	0
MGB4124	Squeegee 24 In	0
MGB70B	Fender Brush, Blue 20" Handle	6
MLLT4500/UAK	Harness, Universal Size Back D-Ring T/B	0
MLLT4500/XXLAK	Harness, Universal Size Back D-Ring	10
MLLT6121TB/6FTAF	Lanyard 2 Leg Web Tie Back Titan	13
MSA449895	Goggle Retainer For Full Brimhard Hat	14
MSA454734	Hat, Orange Full Brim V-Gard Staz On Sus	20
MSA475367	Hat, Gray Full Brim V-Gard Fa s -Trac Su	28
MSA475369	Hat, White Full Brim V-Gard Fas-Trac Sus	20
MSA475371	Hat, Red Full Brim V-Gard Fas-Trac Suspe	3
MUTST-GO	50Yd Glo-Orange Flagging	21
MXP00102	Pipe Wrench 10"	0
MXP00103	Pipe Wrench 12"	7
MXP00105	Pipe Wrench 18"	3
MXP00214	Wrench, Adjustable 12"	5
MYJT6	General Purpose Grease Cartr	0

NFI75101-10	Boot Servus Pro Steel Toe Size 10	18
NFI75101-11	Boot Servus Steel Toe Sz 11	12
NFI75101-12	Boot Servus Pro Steel Toe Sz 12	12
NFI75101-13	Boot Servus Pro Steel Toe Sz 13	6
NFI75101-8	Boot Servur Pro Steel Toe Sz 8	12
NFI75101-9	Boot Servur Pro Steel Toe Sz 9	18
NSP127035	Eyewash Station 16 oz Wall Mt. Double	4
NSP7140N95	Respirator N95 W/Exhalation Valve 10/Bx	30
OLY38-170	10in Drop Forged C-Clamp	2
PDI2395	Wipes, Respirator 100/Box	6
PEL2000CBK	Pelican SabreLite 2000, Black - 3C-	0
PEL2000CYL	Pelican SabreLite 2000, Yellow - 3C	0
PEL2620C	Pelican Headsup Lite LED	0
PICKAXE	Pick Axe	2
PIP58-8030	Gloves, 12" PVC Smooth Finish	0
PLW10-200	12" Flex Hose for Grease Gun	10
PLW30200	Grease Gun	0
PLY620C	Poly Sheeting 20x100x6 Clear	9
PRTAB17510	Harness W/ Single D-Ring	0
PRTAE542AW2	Lanyard, 6 Shock Absorbing	0
RAGFLC10	Rag, Colored Fleece 10Lb/Case	16
RAGFLC50	Rags, Color Fleece 50Lb/Case	5
RAYAL9V	Ray-O-Vac 9V Alkaline Battery	18
RAYALAA	Ray-O-Vac AA Alkaline Battery	240
RAYALAAA	Ray-O-Vac AAA Alkaline Battery	205
RAYALC	Ray-O-Vac C Alkaline Battery	138
RAYALD	Ray-O-Vac D Alkaline Battery	90
RCR2003L	Rainsuit 3 Piece .35mm PVC/Poly Lrg	20
RCR2003X2	Rainsuit 3 Piece .35mm PVC/Poly 2XL	60
RCR2003X3	Rainsuit 3 Piece .35mm PVC/Poly 3XL	32
RCR2003X4	Rainsuit 3 Piece .35mm PVC/Poly 4XL	60
RCR2003X5	Rainsuit 3 Piece .35mm PVC/Poly 5XL	60
RCR2003XL	Rainsuit 3 Piece .35mm PVC/Poly XL	40
RCRV211R1	PolyMeshVest18x47"OrangeW/1"YellowStripe	0
ROPPOL126	1/2 X 600 Yellow Poly Rope	2
ROPPOL146	1/4 X 600 Yellow Poly Rope	1
SAFB52	Set of Side Shields - Clear	10
SCR2400	Knife, Utility	89
SCR2406	Blades, Replacement For Utility Knife 10	2
SRBABSORBALL	40Lb - Kitty Litter	0
STITS420	Ts 420 14" Cutquik	0
STKSL12	Hammer 12 Lb. Sledge Type 36 Handle	2
TAPE2101BU	Tape Electrical .75 Blue	2
TAPE2101GR	Tape Electrical .75 Green	5
TAPE2101R	Tape Electrical .75 Red	5
TEX10535	Bag Duffle 21 X 36 In	12
TRP31173	Shovel Round Point LH Hardwood Handle	6
TRP31284	Truper D Handle 16" Drain Spade	1
TRP31349	Shovel Plastic Scoop Heavy Duty Grey	17
TRP33041	Shovel Mia Square Point	12
TYC114S	Tape Duct 2" x 55 Yd 24/Case	1
TYC214S	Tape, Duct 2 Silver, 24/Case	6
UVXS3960C	Goggle, Stealth Clear Anti-Fog Lens	3
WD40108	Lubricant Wd40 8 Oz Can	24
WEBLL90-4-100	Lifeline 5/8x100 w/snap hook each end	0

APPENDIX A. DESC POLICY LETTER I-13 "FUEL SPILL/LEAK REPORTING" AND REPORT FORM

1. DESC Policy Letter I-13: Fuel Spill/Leak Reporting
2. DESC Fuel Spill/Leak Reporting Form

DEFENSE LOGISTICS AGENCY
DEFENSE ENERGY SUPPORT CENTER
8725 John J. Kingman Rd. Suite 4950
Fort Belvoir, Virginia 22060-6222

Policy Number: DESC-I-13 **January 28, 2008**

FUEL SPILL/LEAK REPORTING

1. GENERAL. This interim publication provides instructions and responsibilities relative to reporting and documentation requirements for any discharged, leaked, or spilled DWCF product. The term spill describes a leak/spill in the quantity Defense Energy Support Center (DESC) defines as reportable. The instruction is applicable to all DESC capitalized Government Owned/Government Operated (GOGO), Government Owned/Contractor Operated (GOCO), and Contractor Owned/Contractor Operated (COCO) Defense Fuel Support Point (DFSP). DESC Regions shall report Transportation Operating Agreement (TOA) notifications of government owned fuel spill in a *Situation Report (SITREP)* that describes the spill incident. This policy was coordinated within DESC and with military Service Control Points (SCP) and approved by DESC as interim guidance pending inclusion into DoD 4140.25-M, Volume II, Chapter 10, Inventory Management, Accountability.

1.1. SUPERSESSION. This is the initial publication of the instruction.

2. REFERENCES.

2.1. *DOD 4140.25-M, Volume II, Bulk Petroleum Management, Chapter 10, Accountability*

2.2. *Environmental Guide for Fuel Terminals*

2.3. *DOD 7000.14-R, Volume 12, Chapter 7, Financial Liability For Government Property Lost, Damaged, Destroyed, Or Stolen*

2.4. *DESC Interim Policy and Procedural Guidance*

2.4.1. *DESC-P-1, Recording and Processing Inventory Transactions and End-of-Month Physical Inventory and Operating Gain/Loss Adjustment Transactions*

2.4.2. *DESC-P-3, Document Control and Data Backup & Retention Policy*

3. RESPONSIBILITIES. The following summarizes DFSP responsibilities and processes to report, monitor, and investigate petroleum losses due to spillage.

3.1. DESC defines a reportable fuel leak/spill as any leaking, spilling, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the

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January 28, 2008

environment 25 gallons or more on land or any waterway discharge that creates a sheen upon the water. Integral to the DESC environmental protection mission, every capitalized DFSP shall notify DESC of reportable spill of DWCF Class III Bulk Petroleum products. TOA notification of government owned fuel spills shall be reported by DESC Regions in a *SITREP*.

3.1.1. Fuel spill reporting for quantities less than 25 gallons shall comply with local contingency response plans. This reporting requirement shall not circumvent procedures in local spill contingency response plans or Service level instructions. DFSPs shall continue to complete and forward fuel spill reports through the chain of command as outlined in those plans. If a DFSP or TOA terminal is required to report for quantities less than 25 gallons, forward copy of the spill report to DESC using applicable Service instructions.

3.2. Spill reports inform program managers and serve a variety of purposes to include:

3.2.1. Allocate resources necessary to achieve timely and cost effective repairs and cleanups.

3.2.2. Assist with quick return to service of affected fuel storage and distribution facilities.

3.2.3. Develop trend analysis about equipment and facility information such as manufacture, model, age, repair maintenance history, and so forth.

3.2.4. Assist DESC in environmental budget development.

3.2.5. Record and document appropriate determinable loss and recovery of DWCF product.

3.3. Upon identification or notification of a fuel spill DFSP Responsible Officers (ROs), Terminal Managers (TMs), and/or DFSP personnel shall:

3.3.1. Isolate the fuel spill area and eliminate ignition sources.

3.3.2. Stop the fuel flow and contain the fuel spill.

3.3.3. Notify DFSP senior management and request assistance.

3.3.4. Notify appropriate agencies and/or installation management.

3.3.5. Initiate product cleanup and recovery operations.

3.3.6. Submit required reports.

3.4. The *Environmental Guide for Fuel Terminals* provides related information regarding governing acts, laws, regulations, guidelines, and so forth. The RO or TM shall develop local spill reporting procedures and provide local spill containment and reporting procedures training to assigned DFSP personnel.

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3.5. Initial Fuel Spill Reporting Requirements: DFSPs shall report fuel spills involving DWCF product to DESC-WE, the respective Service Control Point, and DESC Region/Office as quickly as possible, but not later than 24 hours from discovery. Military Services will follow their specific spill reporting procedures to satisfy intent of this paragraph and reporting timelines. DESC Regions shall ensure reporting of the incident flows appropriately up the chain to DESC. Regions shall contact the affected DFSP directly to offer assistance and/or determine what further assistance is required. In order to accomplish this, DFSPs shall report spill information through the appropriate chain of command and respective DESC Region/Office to *desc.spillreports@dla.mil*:

DESC Americas	- DESC-AM.spillreports@dla.mil
DESC Pacific	- DESC-PAC.spillreports@dla.mil
DESC Europe	- DESC-EU.spillreports@dla.mil
DESC Middle East	- DESC-ME.spillreports@dla.mil

DESC environmental protection specialists, DESC Operations Center, and DESC Inventory Management Division shall review the reports received at desc.spillreports@dla.mil to provide technical assistance as required.

3.5.1. DFSPs shall attach copies of fuel spill reports to auditable documents as supporting documentation to the *DD Form 1348-8, DOD MILPET: DFSP Inventory Accounting Document and End-of-Month Report* in accordance with *DESC-P-1, Recording and Processing Inventory Transactions and End-of-Month Physical Inventory and Operating Gain/Loss Adjustment Transactions.*

3.5.2. DESC accepts locally developed spill report forms as attachments to the e-mail message provided the following information is included:

3.5.2.1. Reporting Location Name, Country, State, and DODAAC

3.5.2.2. Report Sequence Number, example: 001

3.5.2.3. Date and time of the spill.

3.5.2.4. Location and source of the spill.

3.5.2.5. Type of product spilled.

3.5.2.6. Approximate quantity spilled. Report all quantities in U.S. Gallons.

3.5.2.7. Weather conditions at the time of the spill.

3.5.2.8. Cause and circumstances of the spill.

3.5.2.9. Environmental impact and potential hazards such as fire, explosion, and so forth, if any.

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3.5.2.10. Personal injuries or casualties, if any.

3.5.2.11. Preliminary evidence of negligence, abuse, willful misconduct, or deliberate unauthorized use or disposition of government property.

3.5.2.12. Corrective action(s) taken to control, contain, and clean up the spill.

3.5.2.13. Name and telephone number of the spill cleanup point of contact.

3.5.2.14. Requirement for DESC spill cleanup support and/or funding.

3.6.2.15. Name of discoverer.

3.5.2.16. Notified Agency names.

3.5.3. Follow-on Reports: DFSPs shall provide SITREPs as follow-on updates to the spill incident. *Appendix 1* provides the SITREP format for DFSPs to submit through the applicable Service Control Point and respective DESC Region/Office to desc.spillreports@dla.mil. Military Services will follow their specific spill reporting procedures to satisfy intent of this paragraph and reporting timelines. SITREPs provide status updates to military service chains of command and DLA/DESC after the initial spill report and as conditions/events change or occur. DFSPs shall submit a SITREP to DESC as quickly as possible not later than 24 hours after the initial spill report submission. DFSPs shall submit SITREPs until conclusion of the spill event or DESC-WE notification to terminate to include any local press releases concerning the fuel spill.

3.5.4. DESC-WE, DESC-WI, DESC Regions, DESC-RB, and DESC-FI shall use the information provided from initial and follow-on reports for a technical review and/or investigation of the spill response to identify lessons learned, determine cause and circumstances, and develop recommended action.

3.6. The DESC- Facilities Inventory Management Division (DESC-FI). DESC-FI shall review and evaluate adequacy of fuel spill reports to determine if further causative research and/or financial liability investigation is necessary and to recommend additional research or investigations in accordance with DOD/DESC publications.

3.6.1. Recommend appointment of an investigating officer or financial liability board to the Director of DESC when appropriate to evaluate corrective actions and to recover costs when negligence, abuse, willful misconduct, or deliberate unauthorized property use/disposition is apparent or evident.

3.6.1.1. Review SITREPs for evidence of compliance to prescribed regulations and if adequate spill response procedures exist and were followed.

3.6.1.2. Review SITREPs to identify personnel involved in the spill incident and level of responsibility assigned to them by management.

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3.6.2. Identify lessons learned and recommend actions to minimize recurrence of petroleum inventory losses due to spills.

3.7. The host military installation commander shall, when appropriate and in accordance with applicable military service regulations, initiate a financial liability investigation regarding the causes of the leak or spill in a timely manner. The host installation commander shall provide copy of the approved financial liability investigation in a timely manner to DESC for inventory adjustment and funding determinations.

4. DESC REIMBURSEMENT OF SPILL RELATED COSTS. To minimize total government spill cleanup costs and expedite cleanup effort, the military installation shall fund initial spill response costs and DLA/DESC shall reimburse the host military installation. DLA/DESC shall reimburse the host military installation for spill response and/or cleanup costs that involve spilled DWCF/DLA/DESC managed petroleum when required documentation is provided. DLA/DESC will not reimburse the host military installation for military and civilian personnel salaries except for those overtime hours of federal civilian employees directly involved in the spill response and/or cleanup. DESC will review costs submitted for funding and will fund eligible leak/spill related costs.

4.1. Military installations may recoup fuel spill response/cleanup costs through preparation and submittal of a *DD Form 1391, FY__ Military Construction Project Data,* and attached copies of all related spill incident reports to DESC-WE.

4.2. Government-owned DFSPs shall provide a copy of proposed cleanup actions and projected funding levels required for cleanup completion including an itemized cost breakdown. Funding requests shall include a projected schedule of out-year funding costs and cost breakdown for spill incident response and cleanup efforts.

5. NON-REIMBURSED SPILL RELATED COSTS. Upon delivery of DWCF petroleum product into an end use customer vehicle, equipment item, facility, vessel/ship, or aircraft, subsequent petroleum spill incidents are not eligible for DESC fuel spill cleanup funding. The respective military service is responsible to fund these types of spills.

6. DOCUMENT RETENTION. DFSPs shall retain all supporting causative research and spill report documents in the DFSP document control file and Accountable Official files in accordance with *DESC-P-3, Document/Data Control and Retention Policy*.

//original signed//

MAYNARD J. SANDERS
Director

OPR: DESC-WE
OCRs: DESC-F, R, TK, and DESC Regions,
SCPs: AFPET, NOLSC, and APC

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AP1. APPENDIX 1

SITREP FORMAT

DFSP Name:_____
DFSP Location (Country, State, County/Province):_____
DFSP DODAAC: _____
SITREP Sequence Number: _____ (example: report #3 from Bangor ANGB would be 003).
Report all quantities in U.S. Gallons.

Date/Time of spill event.

Type of fuel spilled, or recovered.

Spill Quantity.

Quantity of recovered product.

Cause of spill.

Name of discoverer.

Notified Agency names.

What is current status of initial response?

Total quantity of product recovered to date.

Has product affected navigable waters?

If spill caused by equipment malfunction or failure then;

Has equipment been repaired?

Has equipment been tested (include test dates)?

Type of testing conducted.

What are the results of testing?

Has a project been prepared to repair/replace the equipment?

What is the status of the repair project, if required?

Will a site assessment be required?

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If required, when will site assessment begin?

Will further remediation be required?

If remediation will be required, what type of remediation?

Have the federal, state, or local authorities informed of the planned remediation?

Has the appropriate regulatory agency provided approval of the remediation plan?

Is there adverse affect to ground water? If so, is it a source of drinking water?

Provide copies of any maps that identify the spill site and the location of the affected area. Maps should be of adequate scale to indicate the affected area and should identify all structures on or in the immediate area of the spill site.

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DEFENSE LOGISTICS AGENCY
DEFENSE ENERGY SUPPORT CENTER
DEFENSE ENERGY SUPPORT CENTER AMERICAS
2320 La Branch Street, Room 2118
HOUSTON, TEXAS 77004-1091

IN REPLY REFER TO DESC-AM

10 AUG 2007

MEMORANDUM FOR DESC AMERICAS CUSTOMERS AND SUPPLIERS

SUBJECT: Emergency Notification Procedures

The following information is provided to assist you in contacting a representative of DESC Americas to resolve fuel or quality problems that arise during non-duty hours-or in the event of an emergency or natural disaster that causes the temporary closure of your servicing DESC Americas regional office.

After Duty Hours Emergencies: If it is after normal duty hours, or on a weekend or holiday, and you are unable to contact a regional office representative with your fuel/quality emergency, please call the Headquarters Staff Officer at:

(703) 767-8420 or DSN 427-8420 (Ft. Belvoir, VA)

The Staff Duty Officer will then contact key region personnel at their homes to respond.

Emergency Office Closure/Relocation: In the event that our Houston, Texas office or San Pedro, California office is closed during regular business hours due to an emergency, an alternate site will be set up within 12 hours to continue operations. We will try to notify all affected customers and suppliers of any new phone numbers as soon as possible. If this information is not available to you, please call the DESC Headquarters Staff Duty Officer at (703) 767-8420 or (DSN 427-8420) for instructions on how to contact the regional office at its alternate site. If you cannot reach Headquarters DESC, please contact our other regional office for assistance:

Americas East (Houston, TX): (713) 718-3770 (DSN 940-1152) ext. 101 or 102
Americas West (San Pedro, CA): (310) 241-2800 (DSN 929-6965), ext. 101 or 106

Web Page Contact Info: The DESC public web site includes additional regional office contact information under the tab labeled "DESC Location": http://www.desc.dla.mil

This memorandum supersedes all previous memorandums form this office, same subject. The POC for this action is Mr. Bonar Luzey, (713) 718-3770 ext. 105, or DSN 940-1152 ext. 105.

SHAWN P. WALSH
Colonel, USA
Commanding

DESC Report Form

Location Name			
Location State			
Location Country			
DODAAC Report Sequence Number			
Date of Spill		**Time of Spill**	
Location of Spill		**Source of Spill**	
Product spilled		**Quantity Spilled (in U.S. gallons)**	
Weather Conditions at the Time of the Spill			
Cause and Circumstances of the Spill			
Environmental Impact and Any Potential Hazards			
Personal Injuries or Casualties			

DESC Report Form	
Preliminary Evidence of Negligence, Abuse, Willful Misconduct, or Deliberate Unauthorized Use or Disposition of Government Property	
Corrective Action(S) Taken to Control, Contain, and Clean Up the Spill	
Name and Telephone Number of the Spill Cleanup Point of Contact	
Requirement for DESC Spill Cleanup Support and/or Funding	
Name Of Discoverer	
Names of Notified Agencies	

APPENDIX B. FORT HOOD MUTUAL AID AGREEMENTS

1. Mutual Aid Agreements (to be provided by Fort Hood FES)

APPENDIX C. FORT HOOD POL/HAZMAT TANKS AND LESS THAN 90-DAY HAZWASTE STORAGE LOCATIONS

1. IRP Form C-1: Fort Hood ASTs
2. IRP Form C-2: Fort Hood Mobile Containers (Refuelers)
3. IRP Form C-3: Fort Hood Diesel AST Fueled Emergency Generators
4. IRP Form C-4: Fort Hood Drums and Portable Containers
5. IRP Form C-5: Fort Hood Oil-Filled Operational Equipment Containers (55 gallons or greater)
6. IRP Form C-6: Fort Hood Electrical Transformers with Dielectric Oil Storage Capacities 55 gallons or greater
7. IRP Form C-7: Drums and Portable Containers with Inadequate or no Secondary Containment
   AST Fueled Emergency Generators Without or Inadequate Secondary Containment
8. IRP Form C-8: Fort Hood USTs
9. IRP Form C-9: Less than 90-Day Hazardous Waste Storage Sites

IRP FORM C-9: LESS THAN 90-DAY HAZARDOUS WASTE STORAGE SITES

Name	Bldg	Description of Activities
Training Support Center (TASC)	1156	RCRA permit exempt Paint booth
Classification Unit	1345-1349	RCRA permit exempt Registered oil filter storage A85378
Silver Recovery Unit	1348	RCRA permit exempt Recycle unit Located at Classification Unit
Non-refillable Compressed Gas Cylinder Recycling	1348	RCRA permit exempt Recycle unit Located at Classification Unit
Paint Can Recycling	1348	RCRA permit exempt Recycle unit Located at Classification Unit
Solvent Distillation Unit	1949	RCRA permit exempt Recycle unit Located at Fluid Recycling Center
HAAF Aviation	7013	RCRA permit exempt Paint booth
4th Infantry Division Paint Booth	9576	RCRA permit exempt Paint booth
1st Cavalry Division Paint Booth	13065	RCRA permit exempt Paint booth
13th Corps Support (Expeditionary) Paint Booth	40001	RCRA permit exempt Paint booth
DOL Maintenance	88027	RCRA permit exempt Paint booth
MATES		RCRA permit exempt
MATES – Distillation Unit		RCRA permit exempt Recycle unit
Inert Material Management Unit		RCRA permit exempt Accumulation of inert material
Excerpted from the *"Fort Hood Comprehensive Site Compliance Evaluation"* dated January 2008		

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APPENDIX D. SITE SURVEY FIGURES

1 AAFES Main Service Station
2 AAFES Picnic Palace
3 Hood Road Shoppette
4 Clear Creek Shoppette
5 Comanche Shoppette (WFH)
6 WFH Service Station
7 Warrior Way Shoppette
8 Motor Pools 705, 707, 6972, 6975, 6978
9 16th SIG BN Motor Pool; 53rd QM BN Motor Pool; TOPO Unit; 53rd QM BN Motor Pool
10 MP 4615, 4625
11 Aircraft Maintenance Facilities 6940 and 7007
12 Motor Pools 6950, 6951, 6952, 6953
13 Aircraft Maintenance Facility 7021, 7022, 7052
14 AOP/POL Facility (Buildings 7090, 7086, 7082, 7080, 7084, 7088, 7054, 7046, 7043, 7045, and 7012)
15 Motor Pools 9127, 9513, 9535, 9529
16 Motor Pools 9553, 9563, 9576
17 Motor Pools 11050, 9003, 9112, 9122
18 Motor Pools 11006, 11029, 13009, and 13029
19 704th MSB Motor Pool; 3-66th AR BN Motor Pool; HHC 1 BDE (4ID) Motor Pool
20 2nd CHEM Battalion
21 Motor Pools 15011, 15028, 15060, 17001, and 17030
22 Motor Pools 17047 and 19012
23 TMP
24 NEFF
25 Motor Pools 25020, 26040, 26027, 26041, and 30015
26 Motor Pools 30017, 30033, and 32002
27 215th FSB Motor Pool; 115th FSB Motor Pool
28 Motor Pools 38003, 38014, 35023, and 35014
29 Motor Pools 38023, 38033, 38053, and 38063
30 Transportation Motor Pools 40015, 40001M, 4027M, 40008, 4115, and 4163
31 Motor Pool 44012
32 Motor Pools 90023 and 90033
33 Motor Pool 90052
34 Motor Pools 90094, 90098, and 90135
35 Motor Pools 90141and 90139
36 Motor Pools 91039 and 91058
37 Sportsman's Club
38 Officer's Club
39 Theodore Roosevelt Dining Facility
40 A&W Burgers
41 Raider Dining Facility; DISCOM Dining Facility
42 Popeyes and Burger King
43 Division Support Dining Facility
44 Darnell Hospital DFAC
45 Burger King

46 SFH Dining Facility
47 Phantom Warrior Bowling
48 Burger King
49 Clear Creek Golf Course Facility
50 NFH Dining Fac 2
51 NFH Dining Fac 1
52 Divarty Dining Fac
53 Coulters BBQ
54 SFH Dining Fac
55 DPW Classification Unit
56 DPW JP-8 Recycling Facility
57 DPW Motor Pool
58 BLORA Facility
59 Darnall ACH
60 Clear Creek Golf Course
61 Range Control
62 Fort Hood Type I MSW Landfill
63 North Fort Hood Fire Station
64 NFH Wash Facility
65 NFH Shorthorn Airfield
66 DOL Maintenance Division (DS/GS Maintenance)
67 Buildings 89010 and 89100
68 Railhead
69 WFH Naval Air Building 90047
70 Fort Hood Fire Station #2
71 Ground Approach Radar Facility (RGAAF)
72 Building 94010 (TSC)
73 Bulk Fuel Storage Facility
74 RGAAF Alert Farm and South Ramp
75 Robert Gray AAF RRF
76 HAAF RRF
77 Building 1001
78 Building 4291
79 Building 8001
80 Building 32002
81 Building 56718
82 Building 56767
83 Building 90145
84 Building 7080
85 Transformer and Generator Locations A
86 Transformer and Generator Locations B
87 Transformer and Generator Locations C
88 Transformer and Generator Locations D
89 Transformer and Generator Locations E
90 Transformer and Generator Locations F
91 Transformer and Generator Locations G
92 Transformer and Generator Locations H
93 Transformer and Generator Locations I

94 Transformer and Generator Locations J
95 Transformer and Generator Locations K
96 Transformer and Generator Locations M
97 Transformer and Generator Locations M
98 Transformer and Generator Locations N
99 Transformer and Generator Locations O
100 Transformer and Generator Locations P
101 Transformer and Generator Locations Q
102 Transformer and Generator Locations R
103 Transformer and Generator Locations S
104 Transformer and Generator Locations T
105 Transformer and Generator Locations U
106 Transformer and Generator Locations V
107 Transformer and Generator Locations W

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APPENDIX E. SELF-INSPECTION FORMS

1. IRP Form E-1: Fort Hood Inspection Checklist
2. IRP Form E-2: Tank Inspection Checklist
3. IRP Form E-3: Tank Inspection Log
4. IRP Form E-4: Response Equipment Inspection Checklist
5. IRP Form E-5: Response Equipment Inspection Log
6. IRP Form E-6: Secondary Containment Inspection Checklist
7. IRP Form E-7: Secondary Containment Inspection Log
8. IRP Form E-8: Secondary Containment Drainage Log

IRP FORM E-1. FORT HOOD FACILITY CHECKLIST

Date: _____Inspector:_____Site/Unit: _____

1. Document any actions that need to be taken
2. Note any work orders with their work order number, date submitted and who submitted it.
3. If no actions are required, initial next to the item

UPRP	**Actions**
Is ventilation system clear of debris?	
Physical security of door – is lock broken, parts ordered?	
Any large dents, rust, corrosion, leaks, punctures on containers?	
Are collars, caps, plugs, bungs and lids in place?	
Are 500 gal pods grounded properly?	
Is there a fire extinguisher available?	
Are used products properly stored?	
Are containers for fuel filters grounded?	
Is the NFPA 704 sign legible?	
Are NO SMOKING SIGNS in place?	
Are In Case of Spill signs in place (FH REG 420-3)?	
POL	**Actions**
Is the building properly grounded, signs of rust, corrosion?	
Are product labels in place and easily identifiable?	
Are there expired products? If so, mark NOT FOR ISSUE	
Is ventilation system clear of debris?	
Are hazardous/incompatible products segregated from each other?	
Physical security of door – is lock broken, parts ordered?	
Any large dents, rust, corrosion, leaks, or punctures on containers?	
Are collars, caps, plugs, bungs and lids in place?	
Is there excess liquid in the secondary containment of the building	
Check the grate, trough, piping for excess POL	
Is a fire extinguisher available?	
Are storage area pathways clear?	
Is the NFPA 704 sign legible and marked IAW MSDS?	
Are NO SMOKING SIGNS in place?	
Are In Case of Spill signs in place (FH REG 420-3)?	
Are current Material Safety Data Sheet (MSDS) in the building?	
Are there adequate spill kits available near the POL?	
Oil Water Separator (WASHRACK)	**Actions**
Evidence of unauthorized cleaning compounds (emulsified oil?)	
Are there excessive amounts of oils in or around OWS?	
Do you see signs of direct dumping of POL products in separator?	
Are there signs of POL products escaping past OWS baffle?	
Is there trash in interceptor?– Clean it out if there is.	
Is the grate properly secured?	
Solids Level/Oil Depth (Solids should be less than 25% of total)	Solids: Oil:

Signature: _____

IRP FORM E-2. TANK INSPECTION CHECKLIST

Date: _____Inspector:_____Phone Number: _____
(Week Ending)

Site: _____Unit/Organization: _____

Tank No.: _____Contents: _____Capacity: _____

___ Check tanks for leaks, specifically looking for:
- ____Drip marks
- ____Discoloration of tanks
- ____Puddles containing spilled or leaked material
- ____Corrosion
- ____Cracks or damage
- ____Localized dead vegetation

___ Check supports and foundation for:
- ____Cracks or damage
- ____Discoloration
- ____Puddles containing spilled or leaked material
- ____Settling
- ____Gaps between tank and foundation
- ____Damage caused by vegetation roots

___ Check piping and valves for:
- ____Cracks or damage
- ____Droplets of stored material
- ____Discoloration
- ____Corrosion
- ____Bowing of pipe between supports
- ____Evidence of stored material seepage from valves or seals
- ____Localized dead vegetation

Check the following items, if applicable (indicate Not Applicable [NA], where appropriate):
- ____Fire Extinguishers W/Seals Present and Charged
- ____Emergency Shower and Eyewash Operating
- ____Tanks and Vehicles Properly Grounded (Ohms Disks on Grounding Cables)
- ____Calibration Disks on Meters
- ____Drip Pans Present
- ____All Valves Closed
- ____Tank Full to Correct Level and Liquid Level Gauge
- ____Tank Contents Correctly Labeled on Outside of Tank
- ____Spill Kit on Site
- ____Adequate Secondary Containment Provided

Comments: _____
_____
_____
_____

Note: Complete Tank Inspection Log **immediately** after completing inspection checklist.

Signature below certifies that daily inspections were completed for the week indicated. . Note any exceptions above.

Signature: _____

IRP FORM E-3. TANK INSPECTION LOG

Inspector	Tank	Date	Comments

IRP FORM E-4. RESPONSE EQUIPMENT INSPECTION CHECKLIST

Date: ____________ Inspector: ______________________ Site: ___________________________

___ Check the inventory of response equipment

Item	Quantity	Storage Location	Accessibility (time to access and respond)	Operational Status/ Condition	Actual Use (last test date and testing freq.)	Shelf Life (present age, exp. replacement date)

Comments and Discrepancies:

____

____

____

Note: Complete Inspection Log **immediately** after completing inspection checklist.

IRP FORM E-5. RESPONSE EQUIPMENT INSPECTION LOG

Inspector	Date	Comments

(Use Section 3.2 of the response plan as a checklist)

IRP FORM E-6. SECONDARY CONTAINMENT INSPECTION CHECKLIST

Checklist	Item	Yes	No	N/A
A. Dike or berm system:	1. Level of precipitation in dike affects available capacity.	☐	☐	☐
	2. Drainage valves not properly operating.	☐	☐	☐
	3. Dike or berm permeability inadequate.	☐	☐	☐
	4. Debris hinders drainage or capacity.	☐	☐	☐
	5. Erosion affects structural integrity.	☐	☐	☐
	6. Permeability of the earthen floor of diked areas inadequate.	☐	☐	☐
	7. Location/status of pipes, inlets, drainage beneath tanks, etc., inadequate.	☐	☐	☐
B. Secondary containment:	1. Cracks.	☐	☐	☐
	2. Discoloration.	☐	☐	☐
	3. Presence of spilled or leaked material.	☐	☐	☐
	4. Corrosion.	☐	☐	☐
	5. Valve conditions.	☐	☐	☐
C. Retention or drainage ponds	1. Erosion affects structural integrity.	☐	☐	☐
	2. Available capacity inadequate.	☐	☐	☐
	3. Presence of spilled or leaked material.	☐	☐	☐
	4. Debris hinders drainage or capacity.	☐	☐	☐
	5. Stressed vegetation.	☐	☐	☐

Comments: Address any "Yes" checks.

Name:	Signature:
Location:	Date:

IRP FORM E-7. SECONDARY CONTAINMENT INSPECTION LOG

Inspector	Secondary Containment	Date	Comments

IRP FORM E-8. SECONDARY CONTAINMENT DRAINAGE LOG

Instructions: All storm water must be removed from any secondary containment structure within 7 days of a rainfall event. The storm water shall not be discharged without treatment if it has a visible sheen.

Frequency: Within 7 days of rainfall event

Site/Date	Oil Present[1] (Y/N)	Treatment Employed (Y/N)	Drain Valve Opened (time)	Drain Valve Closed and Locked (time)	Name	Comments

[1] Product or sheen

APPENDIX F. EXERCISE DOCUMENTATION FORMS

1. IRP Form F-1: Qualified Individual Notification Drill Form
2. IRP Form F-2: Emergency Procedures Exercise Form
3. IRP Form F-3: SMT Tabletop Exercise Form
4. IRP Form F-4: Equipment Deployment Form

IRP FORM F-1. QUALIFIED INDIVIDUAL NOTIFICATION DRILL FORM

Date Performed:		**Exercise or actual response?**	
Facility Initiating Exercise:			
Name of person notified:			
Is this person identified in your response plan as Qualified Individual or designee?			
Time Initiated:		**Time in which Qualified Individual or designee responded:**	
Method used to contact:	Telephone?	Pager?	Radio?
	Other?		
Emergency Scenario:			
Evaluation:			
Changes to be implemented and person/agency responsible:			
Time table for implementation and person/agency responsible:			
Identify which of the 15 core components of your response plan were exercised:			
Printed Certifying Name:			
Certifying Signature:			
Retain this form for a minimum of 5 years (for EPA).			

IRP FORM F-2. EMERGENCY PROCEDURES EXERCISE FORM

Date Performed:		**Exercise or actual response?**	
Location:			
Facility Initiating Exercise:			
Time Initiated:		**Time completed:**	
Section of facility emergency procedures exercised:			
Description of exercise:			
Changes to be implemented and person/agency responsible:			
Time table for implementation and person/agency responsible:			
Identify which of the 15 core components of your response plan were exercised:			
Printed Certifying Name:			
Certifying Signature:			
Retain this form for a minimum of 5 years (for EPA).			

IRP FORM F-3. SMT TABLETOP EXERCISE FORM

Internal Exercise Documentation Form – SMT Tabletop Exercise			
Date performed:		**Exercise or actual response?**	
If an exercise, announced or unannounced:			
Location of Tabletop:			
Time started:		**Time completed:**	
Response plan scenario used (check one):		Average most probable discharge	
		Maximum most probable discharge	
		Worst case discharge	
Size of (simulated) spill:	(gal)		
Describe how the following objectives were exercised:			
SMT's knowledge of oil spill response plan:			
Proper notifications:			
Communications system:			
SMT's ability to access contracted oil spill removal organizations:			
SMT's ability to coordinate spill response with FOSC, state, and applicable agencies:			
SMT's ability to access sensitive site and resource information in the Area Contingency Plan:			
Identify which of the 15 core components of your response plan were exercised:			
Attach a description of the lesson(s) learned and person(s) responsible for follow up of corrective measures.			
Printed Certifying Name:			
Certifying Signature:			
Retain this form for a minimum of 5 years (for EPA).			

IRP FORM F-4. EQUIPMENT DEPLOYMENT EXERCISE FORM

Internal Exercise Documentation Form – Equipment Deployment Exercise						
Date(s) performed:		**Exercise or actual response?**				
If an exercise, announced or unannounced:						
Deployment location(s):						
Time started:		**Time completed:**				
Equipment deployed was (check all applicable):	Base-owned:					
Include OSRO name (if applicable):	OSRO-owned:					
	Both					
List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:						
Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested. (Attach a sketch of equipment deployments and booming strategies)						
For deployment of base-owned equipment, was the amount of equipment deployed <u>at least</u> the amount necessary to respond to the average most probable spill:			**Yes**		**No**	
If no, explain why not:						
Was the equipment deployed in its intended operating environment?			**Yes**		**No**	
If no, explain why not:						
For deployment of OSRO-owned equipment, was a representative sample (at least 1,000 feet of each boom type and at least one of each skimmer type) deployed?			**Yes**		**No**	
If no, explain why not:						

Internal Exercise Documentation Form – Equipment Deployment Exercise				
Was the equipment deployed in its intended operating environment?	**Yes**		**No**	
If no, explain why not:				
Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all population response equipment involved in a comprehensive maintenance program?				
If so, describe the program:				
If not, explain why not:				
Date of last equipment inspection:				
Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill?	**Yes**		**No**	
If no, explain why not:				
Was all deployed equipment operational?	**Yes**		**No**	
If no, explain why not:				
Identify which of the 15 core components of your response plan were exercised during this particular exercise:				
Attach a description of the lesson(s) learned and person(s) responsible for follow up of corrective measures.				
Printed Certifying Name:				
Certifying Signature:				
Retain this form for a minimum of 5 years (for EPA).				

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